

Australian Consumers' Association

April 1995

CHOICE

Investment advice

Don't get caught with the plan from hell

Car restraints

Is your child sitting safely?

How green is your home?

Individuals making a difference

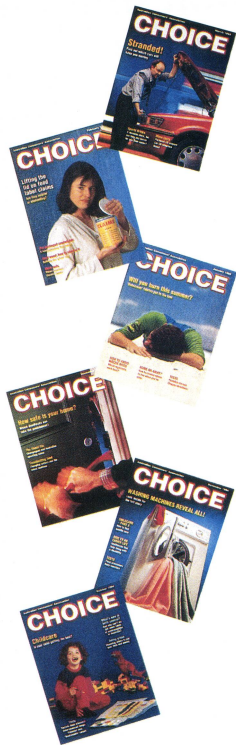
More tests

51 cm TVs

Dishwashers



35th
Birthday
Issue!



About the Consumers' Association

The Australian Consumers' Association is a non-profit, non-party-political organisation established in 1959 to provide consumers with information and advice on goods, services, health and personal finances, and to help maintain and enhance the quality of life for consumers.

We are completely independent. We buy all the products we test on the open market. We are not beholden to any commercial, government or union interests, and we don't take outside advertisements. Our income is derived from the sale of CHOICE and our other publications and products.

We test and rate products and services. Our ratings are usually based on quality without regard to price, and are derived from lab tests, expert judgments and reader surveys. If a product is high in quality and relatively low in price, we deem it a Best Buy. A rating applies only to the brand and model tested, not to other models sold under the same brand name, unless so noted. We can't conduct special tests or provide information about tested products beyond what appears in CHOICE.

No commercial use policy. Our ratings and reports may not be used in advertising or for any other commercial purpose. The Consumers' Association will take all steps open to it to prevent commercial use of its materials, its name, and the name of CHOICE or our other publications. Please report any apparent violation to the Consumers' Association, 57 Carrington Road, Marrickville 2204; fax (02) 558 9341.

We represent and act in consumers' interests. We lobby and campaign on behalf of consumers to promote consumers' rights, to influence government policy, and to ensure consumer issues have a high profile in the public arena.

Membership. Paid subscribers can become voting members of the Consumers' Association on application. Membership costs \$75 per year, which covers your subscription to CHOICE plus a further subscription to our consumer policy and campaigning magazine, *Consuming Interest*.

About CHOICE

CHOICE is published monthly by the Australian Consumers' Association.

Subscription rates. \$48 for one year, \$89 for two years; institutions \$66 per year.

Subscription problems or changes of address. Write to Subscriptions Department, CHOICE, 57 Carrington Road, Marrickville 2204, phone (02) 558 8088 or fax (02) 559 3260. Please include your subscriber number (found in the top corner of your CHOICE address label) or have it ready by you when you phone us.

Back issues. Subscribers can buy back issues at the following rates: \$6 for one copy, \$10 for two, \$13 for three, and \$4 each after that. Non-subscribers can purchase back issues that are less than 12 months old for \$16 per copy; more than 12 months old, \$10. Write to Consumer Information Service, CHOICE, 57 Carrington Road, Marrickville 2204, or phone (02) 559 9855.

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Mailing lists. We never sell the CHOICE mailing list to other organisations. We also don't purchase mailing lists for marketing purposes from other organisations.

Other Consumers' Association products

Choice Books publishes non-fiction titles on a wide range of topics, with a consumer perspective.

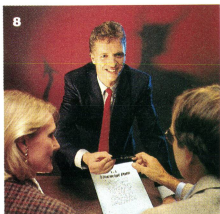
Consumer Bookshelf offers both Choice Books and material from other publishers for sale by mail order.

Test Research provides fee-for-service testing and research on consumer products, services and regulatory issues for other consumer organisations, government and industry. For work to be accepted by Test Research, consumer benefit must be the primary outcome (for example, testing for energy labelling).

Consuming Interest, our quarterly policy and campaigning magazine, is published in February, May, August and November. It provides straight facts, probing analysis, in-depth reporting, informed opinion and stimulating debates. It also gives updates on the lobbying and campaign projects of the Consumers' Association.

CHOICE Travel. This magazine is produced by the UK Consumers' Association and reprinted by CHOICE four times a year. Its reports are independent in the same style as CHOICE and, while they're written from the perspective of a European base, most of the information in them is just as useful to travelling Australians.

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Cover photo: Kent Mears

Choice Regulars

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In tune with our birthday celebrations, we've priced some luxury items around the world.

32 Bodywise: Turn it down or you'll go deaf!

Recent research has shown many young Australians may have destroyed much of their hearing capacity by the time they're out of their teens. What's the problem and how can we fix it?

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More on the Dunlop Grandtrek tyres that are giving problems to owners of new Toyota Landcruisers fitted with them: people have had trouble getting replacements as promised, and now we're also hearing of problems with tyre ruptures.

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Our study shows the standard of advice in the financial planning industry ranges from good to downright frightening. We give you guidance on how to find a good financial planner.

24 How green is your home?

Individuals can do a lot of little things to reduce their household's impact on the environment. We visited six homes around Australia to find out what people who care are doing so far, and offer tips to help. There's also a questionnaire to let you evaluate what impact your own household has on the environment.

Choice Tests

16 How safe is your child's car seat?

This major test reveals that not all child car restraints give the same level of protection in a crash. We tell parents which products to choose.

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Do high energy and water efficiency sometimes translate into poorer washing performance and a nightmare plate-stacking exercise? We think so, and wonder if users think it's a fair trade-off.

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We compared 14 TVs with a 51 cm screen, and found most of them to be good performers and good value.



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Next issue

Overlockers, exterior paint, car insurance, renting vs buying a home, pay TV, living with a disability, eating kangaroo meat, lead — who is at risk?

June, July, August

Tests: Electric cooktops, 35 mm colour film, anti-scald devices for taps, 'lean' mince, electric heaters, vacuum cleaners, 500 L fridges, fax machines, cordless drills, computer printers, laundry detergents.

Surveys and reports: Skiing holidays for beginners, air pollution, pet food, using the hospital system, investing in shares, removalists.



CHOICE CUTS

Happy birthday

CHOICE IS 35!

THIS IS AN EXCITING TIME IN our history — it's our 35th birthday this year. April 1960 witnessed the first edition of CHOICE magazine. And this issue is our 403rd!

Our founder, Ruby Hutchison — Australia's first woman MLC — had been widowed at age 30 with seven children to feed, clothe and educate. She was appalled by the quality of goods and services and decided consumers needed an association of their own to inform them and fight on their behalf.

She and a handful of dedicated volunteers made the Consumers' Association a reality. They even paid personally to mail out that first issue of CHOICE in 1960.

Key articles in the first few issues included safety, slimming cures (some things never change), a wealth of small electrical appliances, gambling (we didn't recommend it), children's school shoes, and whether large-sized packs were really good value or just a marketing rip-off (some things get better and then worse — now that packaging sizes are deregulated again, it's just as hard to tell as it was in 1960).

Ruby's vision was of an organisation that was fully independent, non-profit making in character, accepting no manufacturer samples, with no advertising allowed, no partisanship, and no party-political connections.

That independence has enabled us to give consumers 'tell it like it is' research on products and services they buy. It has also allowed your Association to be a fearless critic of government behaviour, manufacturers, marketers, service providers and others who don't put the consumer first on their list of importance.

Although the Consumers' Association is now a fully professional organisation with expert staff, that original commitment to making things better for consumers hasn't altered at all. This month's investigation of advice from people in the financial planning industry is one of the biggest scams we've discovered. You can be sure we'll not only tell you how to avoid the traps in this service, but

Louise Sylvan,
Chief Executive Officer



we'll bring the full pressure of the Association to bear on those who make the laws that supposedly protect us from such behaviour.

While our original charter has stood the test of time, the way we work has changed and is changing. You now ask us to research more deeply into increasingly complex matters — for instance, what is the right environmental buy, how do complicated financial products interrelate, and what is really going on with our food given new technologies like genetic engineering?

We also recognise your need to obtain information in different forms, and the new communication technologies provide some wonderful opportunities. The first such new service will be Money-CHOICE5 — a telephone service enabling you, for a modest fee, to get independent comparative information from us on which mortgage, term deposit, credit card and so on is best for your individual needs. Given the complexity of these products, consumers are writing in to tell us how relieved they will be to have someone they can trust to give them this information. This exciting new development will mark not only our first interactive service, but the first opportunity to give our consumers personalised information about money.

Most important of all on this birthday, thank you for all the help and contributions you've made — some of you for the full 35 years of our existence. To quote from that first issue: "Our success depends on *your* support." For a wholly independent consumer organisation, that will always be absolutely true.

In the shops

SUPERMARKETS' TOP SELLERS

WE MAY LIKE to think Australians are now making healthier choices at the supermarket, but an analysis of our top-selling supermarket brands by the Nielsen market research company has found we spend most money on cigarettes and soft drinks.

Cigarettes dominate the top of the list: there are four brands in the top 10 and nine in the top 100. The nine leading brands had combined supermarket sales of \$1.06 billion. Nielsen's marketing manager Elgan Potter said sales figures for cigarettes would appear far higher if other outlets, such as petrol stations and milk bars, had been included in the analysis.

In first place on the Nielsen list is Coca-Cola, with supermarket sales of \$348.3 million (and advertising costs of \$16.2 million), followed by Arnott's Biscuits (now controlled by the American company Campbell's Soups), with sales of \$310.3 million. Arnott's claims its Tim Tams are the largest-selling chocolate biscuits per capita in the world.

Multinationals dominate the top 100 brands. Only one product in the top 20 — Goodman Fielder's Buttercup bread — is Australian-owned. Its supermarket sales of \$106.9 million put it in 13th place. (Our top-selling supermarket bread is made by Tip Top, owned by Britain's George Weston.)

The second-biggest Australian-owned product is Birds Eye vegetables (owned by Pacific Dunlop), ranked 22nd; the third is Meadow Lea margarine (owned by Goodman Fielder) in 23rd place; and the fourth is Bega cheese, ranked 24th. Australian icon Vegemite (owned by the American giant Kraft Foods) is ranked 51st, with sales of \$49.7 million.

Cheese featured far higher in Australia than in similar European reports, Mr Potter said, while laundry detergents appeared much lower (number 35) than in Europe, where they made it into the top 10.

According to Nielsen, Omo is our most popular laundry detergent; Weet-Bix is our favourite breakfast cereal; Sorbent tops the toilet tissue table; and Pedigree Pal (in sixth place on the list) is our leading processed pet food.

Australia's top-selling supermarket brands

	Annual sales
1. Coca-Cola	\$348 m
2. Arnott's biscuits	\$310 m
3. Longbeach cigarettes	\$202 m
4. Winfield cigarettes	\$188 m
5. Peter Jackson cigarettes	\$181 m
6. Pedigree Pal dog food	\$180 m
7. Tip Top bread	\$168 m
8. Horizon cigarettes	\$159 m
9. Nescafé instant coffee	\$154 m
10. Kraft cheese	\$143 m

Source: AC Nielsen (Australia)

Our two top-selling supermarket brands — are Australians really making healthier eating choices nowadays?



REJECTED AND RECALLED

IN THE LEAD-UP to Christmas we're often inundated with promotional material in the press for toys, gifts and other products for the holiday season. Last year **THE REJECT SHOP** got its name into the Saturday papers too, but not with advertisements. The variety store chain, which operates 39 stores in NSW, SA and Victoria, gained notoriety because of an alarmingly high number of recalls for toys and other products.

THE REJECT SHOP recalled nine products late last year (see *Recalls and Bans* in the January and March issues of **CHOICE**) after the NSW Consumer Affairs department discovered several hazardous products on sale in its outlets in NSW. The department surveys stores regularly throughout the year, but especially during the peak selling time before Christmas.

When we contacted **THE RE-**

JECT SHOP we were told the recalled products (mainly toys) were "fairly normal sorts of toys", imported from the shop's usual source. That leaves you wondering about the quality of other toys previously sold in the shop and how many potentially dangerous toys have escaped checking procedures.

Following the store's own name, we believe consumers should reject **THE REJECT SHOP**. One of its directors told us the store had now put into place "more stringent checking procedures": consultants would now check each toy for its safety. But it took court action by the Commissioner of Consumer Affairs before the importer took its obligation seriously enough to ensure the toys it sells comply with Australian safety standards.

STOP PRESS: It recalled two more toys late in February.

POTENTIALLY DANGEROUS TOYS



Alcohol labelling

STANDARD DRINK UPDATE

YEARS OF CAMPAIGNING have finally paid off. Late last year the Commonwealth Government approved a regulation that requires alcohol manufacturers to indicate on their products how many 'standard drinks' they contain.

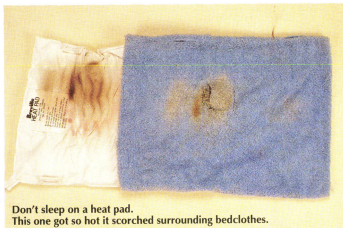
Australia is the first country in the world to introduce standard drink labelling; it will come into effect from December 22, 1995. Unfortunately, though, the current proposal is for a minimum print size of only 1.5 mm — about as small as the print you're reading now.

"How effective will standard drink labels be if they are placed in small print on the back of the

label? Who reads the small print? Moreover, consumers with poor eyesight will be unable to read such small print," said Jillian Woolmer, the Executive Officer of the Alcohol Advisory Council.

The council will call on the industry to act responsibly and provide consumers with the information on the front of the container and in larger print size than the minimum required. We fully support its concerns.

A standard drink contains about 10 g of pure alcohol; various types and quantities of alcoholic drink that make up a 'standard drink' are listed in *How many drinks in a keg of beer?* on page 4 of the June 1994 issue of **CHOICE**.



Don't sleep on a heat pad.
This one got so hot it scorched surrounding bedclothes.

HOT STUFF

HAVE YOU EVER slept on a heat pad to ease aches and pains through the night? The message is: don't. Amy Browne of Woollahra, NSW, woke to find both her heat pad and the bedclothes surrounding it were scorched — fortunately she'd felt it getting rather warm during the night and had at least rolled off it.

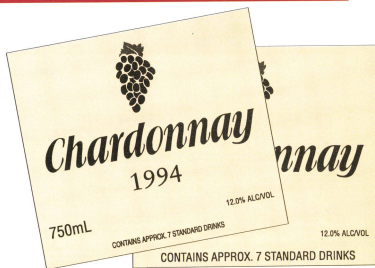
The application of localised heat does provide pain relief to strains and muscular aches, and a heat pad is certainly more convenient than refilling a hot water bottle every few hours. As Mrs Browne said, "It was a godsend to have it — I no longer had to keep getting up during the night."

The instructions for her Breville heat pad do say it "will provide a safe and reliable application of localised heat". They also say, "Do not use unattended". We consider this a totally inadequate warning

if it's intended to tell people not to sleep on it. As Mrs Browne said when she told us about the incident, "It's ridiculous not to use it in bed. That's the place where you need it most!"

After our discussions with the manufacturer, Breville has sent Mrs Browne a new heat pad "without prejudice". She makes use of it when she is sitting in a lounge chair, but for overnight pain relief has reverted to her hot water bottle.

As a result of our intervention, Breville now includes an appropriate warning flyer with every heat pad which alerts purchasers that the product may overheat in places if it's used in bed or if you fall asleep with it switched on. It's unfortunate, though, that neither the manufacturer nor the Federal Bureau of Consumer Affairs thought the matter warranted the issue of a public safety notice.



The small print is the minimum size required for the new alcohol labels. In larger print they'd be easier to read and probably more effective.

ADVERTISING THAT STICKS

IN THE PAST you only had to wash an apple or a tomato before you could eat it; now you often have to peel off a little sticker. Some people are quite annoyed about this trend. "The average consumer is probably less interested in the source of the fruit as long as it is of good quality," wrote one subscriber. "Why do they do it and can you discourage them?" asked another.

Just like junk mail and television advertising, it seems the stickers are here to stay. They're often put on fruit to advertise the grower's brand name, co-operative or region, or to advertise a special quality. The labels are supposed to help you identify fruit so you can pick the same again on your next purchase, which is of benefit to the grower, of course. Signs over the fruit aren't always sufficient for identification purposes, as many larger retailers sell fruit from various regions or growers, which often ends up in the same bins.

Larger producers often have machines to sort and scan their produce for size and colour. These machines can also put the stickers on as part of the process. According to the Batlow Co-operative,

which uses such a machine, the stickers have increased the cost of its fruit minimally. Smaller growers or co-operatives may attach the labels manually, which can obviously increase the price for the buyer if the cost is passed on.

For fruit and vegetables of a special quality, such as organically grown and certified produce, you may be more willing to pay for the benefit of knowing each piece you're buying is from the same certified grower.

Of course, growers also provide fruit and vegetables without stickers on agents' requests. A wholesaler we spoke to only buys about 25% of labelled produce; the rest is unlabelled — and cheaper. Retailers generally prefer produce with stickers, he said, as they think it might indicate better-quality fruit.

Batlow told us most of its consumer feedback had been positive since it introduced the labels. But if the growers' arguments don't satisfy you and you still believe it's a waste of time, money and resources, we recommend you do what you would with other products whose advertising you don't like: don't buy them. There's still some unlabelled produce around.



Fruit ain't fruit.

Can you help?

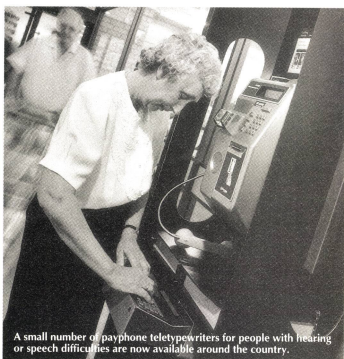
PROBLEMS WITH TERMITE INSPECTIONS?

Have you recently had your house and/or property inspected for termites and borers? Were all infestations discovered and treated appropriately? If not, we'd like to hear from you.

Tell us about your experiences with a inspection that went wrong. What did you do when you found out current or past infestations hadn't been discovered? Did you ask for a second inspection? Did you get a second treatment? What did the company do to remedy the situation? Did you seek legal recourse? Were you successful?

Please write to us by the end of May 1995. Send your letters to **Termite Inspections**, CHOICE, 57 Carrington Road, Marrickville 2204.

Thank you for your help.



A small number of payphone teletypewriters for people with hearing or speech difficulties are now available around the country.

PAYPHONE TTYs

PEOPLE who are deaf or have a hearing or speech impairment now have access to a limited number of special payphones. Telecom has installed a total of 21 payphone teletypewriters (TTYs) nationwide, enabling people to communicate with other business and home telephone TTYs using a keyboard and display screen attached to a Phonecard payphone. Currently more than 6000 Australia-

lians have TTY phones installed in their homes or businesses and the number is increasing.

For further information on how to use TTY payphones and their locations (there's at least one in every state and territory), write to: John Bucknell, Special Services Product Manager, PO Box 3964, Parramatta 2124, or call him on (02) 204 0705.

Child safety

COT WARNING

CHOICE has always advised you to make sure that cots — whether new or secondhand — meet Australian safety standards. The need for this warning was underlined recently following a coronial inquest into the death of a 14-month-old baby in SA.

It appears the child gained a foothold on the diagonal metal brace at the end of his portable wooden cot, reached over the top rail and strangled himself when the collar of his jumper became entangled on a protruding bolt.

The cot was manufactured before the introduction of an Australian design standard for folding cots in 1978 and is no longer on the market. However, hundreds of the cots could still be in use throughout Australia.

To meet Australian safety standards, folding portable cots should be "devoid of sharp corners, projections, cross-bars and detailed decoration between the filling bars to prevent a child from securing a foothold to climb out of the cot, from becoming trapped by hands or feet and from becoming injured in any way", and there must be no sharp or exposed bolts. After 1978 these cots were made with a slide mechanism in place of the raised bolts.

It's not yet compulsory for manufacturers to apply Australian standards to their cots, though mandatory standards, repeatedly called for by the Consumers' Association, are now being developed.

Tyres that let you down

In January we published a Choice Cut about premature wear problems associated with Dunlop Grandtrek 275 tyres fitted to 80 series Toyota Landcruisers, and Toyota's promise to replace them. Since then, we've had many calls from Landcruiser owners who've had problems getting their tyres exchanged, as well as reports that the tyres are easily punctured or blow out on unsealed roads.

WITHIN the first three months of buying his new Toyota Landcruiser, Paul D'Castro of Tom Price in WA suffered five tyre blowouts. The first two tyres — Grandtrek 275s — ruptured in the first two hours of D'Castro driving his new vehicle. All five tyres were replaced with Grandtrek AT1s by the dealer, but the problems continued. He drove roughly 30,000 km in his previous car, a Toyota troop carrier, with no tyre problems.

Brett Clark, also from Tom Price, has had similar problems with the Grandtrek 275s fitted to his car, losing three within the first 5000 km of driving. He

drove his previous car, a Toyota 4Runner, for 40,000 km without a puncture.

Don Osborn from Urrbrae in SA managed to "destroy" three Grandtrek tyres on well-formed but unsealed roads during a trip to Birdsville. The vehicle had done less than 8000 km. He reports that a Pajero fitted with Yokohama tyres and travelling in convoy with his Landcruiser completed the trip with no tyre problems. Osborn did not have any such problems with the previous three Landcruisers he'd owned.

According to Dunlop's promotional material, the Grandtrek 275 suits "those drivers that spend most of their time on sealed roads", with "up to 45% off-road capabilities". About 65% of Toyota's 4WD wagons are sold to metropolitan drivers, and these tyres are put on them to give better performance on sealed bitumen roads than on unsealed roads — essentially they're passenger car tyres.

Toyota's manager of public affairs, Patrick Neville, said over-inflation and driving at high speeds on unsealed roads could be causing the problems. He mentioned that owners who were going to drive on unsealed roads at high speeds might consider a light truck tyre.

Dunlop's promotional material warns that "it is impossible to overstate the importance of tyre selection and tyre care". Yet no one we spoke to who has had problems with blowouts said the salesperson even mentioned tyre options when they bought the vehicle. The tyres are fitted by Toyota in Japan and Dunlop only services them here.



Grandtrek AT1s were used to replace the original Grandtrek 275s in some cases, but they also seem to suffer from premature wear. These photos were taken by Paul D'Castro, who says the tyre (pictured right) took only 9000 km to deteriorate to this condition from new (left).

WHAT TO DO

If you're experiencing problems with Toyota or Dunlop dealers who are resisting requests to change your worn tyres, call the Toyota customer information line on 008 252 097. If you've had problems with blowouts, we suggest you write to the Federal Office of Road Safety at GPO Box 594, Canberra City 2601 ACT, or fax them on (06) 274 7477. We'd also be interested in hearing about any problems you've had.

We think the Grandtrek 275s are simply not suitable for sustained off-road use, and that customers should have been asked about their likely usage and advised of their tyre options when they purchased their vehicle.

Ken Gough, General Manager, Marketing, at Dunlop and Olympic Tyres, says, "There is a recent growing trend by all 4WD manufacturers to fit car tyres." Previously most 4WDs were fitted with light truck tyres.

We believe dealers have a duty of care to tell their customers of any limitations of the vehicle when they buy it.

Toyota's new replacement policy

As to the problems people have been experiencing in getting their tyres replaced because of premature wear, we received dozens of calls from people who have had difficulty getting replacement tyres from either their Toyota or Dunlop dealer. Some people have been told CHOICE got it wrong, and in one bizarre case, that the story was written by a disgruntled ex-Toyota employee!

The information we published in the January issue was based on information provided directly by Toyota Motor Corporation Australia. However, information received from Toyota since our January report is different from its original assurances. The state of play now is:

- There is no replacement charge to people whose vehicles have travelled less than 10,000 km.

- Vehicles which have travelled between 10,000 and 20,000 km are assessed on a case-by-case basis.

- In all other cases, customers are charged on a pro rata basis, depending on the depth of tread remaining. For example, where 75% of tread remains, the customer pays 25%. □

Take my advice?



The financial planning industry is enormous and growing fast, but the standard of advice it sells ranges from good to downright frightening. Australians hand over many millions of dollars annually to financial planners, so competent, professional work should be the rule, not the exception. Unfortunately getting a good plan is a matter of luck and the odds are not attractive.

In this special report we aim to improve your chances of getting sound financial advice by:

- **Outlining the disturbing findings of a major CHOICE investigation into the quality of financial planning on offer throughout Australia.**
- **Highlighting exactly what's wrong with the financial planning industry and what must be done to fix it.**
- **Showing you how to recognise the difference between shonks and professionals so you end up with a financial plan worth more than the paper it's written on (starting on page 12).**

The financial advice game — four chambers, one bullet

To test the current quality of financial planning in Australia, we sent real consumers with real money out shopping for advice. What did they find? A few found excellence, most found mediocrity and quite a few found trouble.

LESS THAN 10% OF THE 58 FINANCIAL plans we examined could be classed as good, based on the overall scores of our expert panel. The bulk of them — around 65% — ranged from acceptable down to bordering on poor, while a quarter were nothing less than substandard. This is extremely alarming.

For the individual consumer, this could mean that taking a rollover cheque to a financial planner to try to ensure the money will last for your whole retirement is a game of Russian Roulette with a one in four chance of ending badly. Those are not comforting odds. The most important financial decision of your life shouldn't be the biggest gamble you've ever contemplated.

If estimates of the number of planners currently working are anywhere near reality, they are seeing hundreds of thousands of people every year. This equates to hundreds of millions of dol-

lars paid out annually in fees and commissions by Australian consumers. If only one in 10 — or even double or triple that number — is getting a professional, ethical, comprehensive piece of work for their money, while fully a quarter is being short-changed, misled or badly advised, the industry represents a national scandal.

Many thousands of Australians are currently being driven into the hands of incompetent or ill-motivated planners by a Commonwealth Government-engineered push to make people support themselves in their old age. If the government expects huge numbers of elderly people to support themselves financially, it has a definite responsibility to ensure they're protected from being exploited and impoverished by unprofessional or unethical financial planners. Our results show that protection doesn't yet exist.

WHAT WE DID

LAST YEAR WE PUBLISHED AN INVITATION IN CHOICE FOR PEOPLE who had money to invest and felt they needed advice to participate in our project. After sifting through hundreds of responses (many thanks to all who wrote in) we selected 23 people to take part. We chose them to give our study a good geographical spread — we had people in capital cities and non-metropolitan regions and in every state — and a wide variety of investment situations. Some had relatively small amounts of money to invest, some had several hundred thousand dollars; some were quite young, some approaching retirement, some already retired.

We asked each participant to visit three different financial planners near where they lived, ask for a comprehensive financial plan to be drawn up and send us the plans they received for assessment by an expert panel. The planners were selected to represent a mixture of the major companies and some smaller independent operators.

After some people were unable to complete the study, we were left with 58 financial plans to assess. We think they represent a pretty good 'snapshot' of the work of this industry right across the country today.

We assembled an impressive expert panel — largely drawn from the financial planning industry itself — to evaluate the plans. (See right for information about panel members.) In consultation with our panel we devised a checklist of important points any good financial plan should take account of and each panel member assessed the plans against it, allocating a grade for each item according to whether the plan dealt with it to a level that was excellent, good, just adequate, poor or not at all (or whether it was for some reason not applicable). These grades were converted to scores and weighted according to their relative importance, as agreed by the panellists. *Not a buying guide!* on page 11 outlines the results of our study.

Of 23 criteria on our checklist, five were considered to be especially important. Where a plan rated a zero (fail) on any one of these five crucial elements, we failed the plan as a whole,

What we found

Even more worrying than the pervasive mediocrity we found, about 20% of the plans examined by our panel were failed on grounds of neglecting one of the five critical factors any good financial plan should contain (see *The bare essentials* on page 15 for details).

These are not questions of shoddy work or poor presentation. They are elements of a financial plan adjudged crucial because neglect of them could mean breach of the Corporations Law, deceptive practice, contempt for a client's stated wishes or a serious miscalculation of their position.

Condescending ...

Some of the lapses of judgment by some planners in our study almost defy belief. One of our participants in Adelaide visited an adviser at her local ANZ bank and asked for a financial plan. Being a

grown-up, she managed this all by herself. She duly set out the joint assets, income, financial objectives and so forth of her fiancé and herself to the adviser and returned home, unchaperoned, to wait for her plan.

Imagine her surprise when it arrived in an envelope not addressed to her at all. She was further surprised — appalled might be more accurate — when she opened it and found a covering letter beginning "Dear Andrew ...", followed by a financial plan in which every personal reference was not to her but her fiancé, whom the planner had never met! Her indignation subsided to sheer disbelief when, upon phoning the gentleman to communicate her feelings about being thus belittled and ignored, he told her, "Well, it is his money, he'll make the decisions." She decided to seek advice elsewhere.

whatever its other merits (see *The bare essentials* on page 15 for an explanation of these critical elements).

Thanks to our panel

The task of assessing and grading 58 financial plans was a massive one and our heartfelt thanks go to the members of our expert panel. They all devoted many hours of their time, as well as their considerable expertise, to this project. The panel consisted of:

■ **Brendan Birthistle** — principal of Connaught Consultants, a licensed dealer in securities and an investment adviser. Brendan is a working financial planner and an active advocate for the rights of investors, for instance as former chairman (1992-93; currently a director) of the Australian Shareholders' Association.

■ **Ken Breakspear** — Executive Officer, Research, Policy and Professional Standards, for the Financial Planning Association of Australia (FPA). Ken is a former executive director of the Australian Society of Investment and Financial Advisers and worked for 10 years for the NSW Corporate Affairs Commission.

■ **Karenn Singer** — Community Information Officer with the National Information Centre on Retirement Investments (NICRI), at the time of our study. Karenn is a member of the National Institute of Accountants and has worked in banking and investment sales and as a financial consultant for a major bank.

NICRI is a government-funded information agency that provides free, confidential services connected with retirement investments, but doesn't give financial advice or recommend particular advisers. You can contact NICRI on 1800 020 110.

■ **Brett Walker** — Senior Compliance Officer for the FPA. Brett is a lawyer who has worked as an Australian Securities Commission (ASC) investigator for the past four years, including two years in its surveillance programs conducting inspections and audits of financial planners. He is currently on a one-year secondment to the FPA.

... culpable ...

While this was merely insulting, other cases were much more serious. One planner advised a client to take actions that may amount to defrauding the Department of Social Security by "giving away" money (returnable "gifts") to family members to increase pension entitlements. Anyone who followed such advice and was caught could find themselves in legal and financial trouble. It doesn't speak highly of the ethical standards of the planner.

When we asked Lynn Ralph, deputy chairperson of the Australian Securities Commission (see *A word from the regulator* on page 13), whether just anyone could put an ad in the *Yellow Pages* and work as a financial planner, she said definitely not; you must hold a licence or proper authority (see *Who gives financial advice* on page 12 for an explanation). Yet when one of our study participants

visited a Sydney planner we found for her in the phone book, he said financial planners weren't really his "area of expertise" and invited a "colleague" to join them.

This man proceeded to treat her to "a full-on sales pitch, complete with flip charts" for Gold Coast property investments, saying she would double her money in seven years according to the "one to seven principle" (all property always doubles in value every seven years!). Both men vigorously tried to persuade her to use her \$90,000 capital as collateral for a \$65,000 loan and to sink the lot into Gold Coast property, leaving her with \$600 a month repayments on a

recommended a managed fund with investments in the Rothmans company!

Another adviser — from Tower Financial Planning — made what a panelist called "an uncalled for effort to induce an investor to sell shares (nearly all with good prospects) to invest in managed trusts. Good for the adviser, questionable value for the investor ... Self-serving in my view."

This is the problem in a nutshell. The vast majority of this industry works on commissions rather than charging straight fees for service: a powerful built-in incentive to give advice which benefits advisers, not their clients. Critics argue that many planners play down or con-

it's a drop in the ocean against the number of plans produced every week throughout Australia. We'd have been concerned to find even one or two problems of the sort outlined above. Yet we found many. The implications, when multiplied across the whole industry, are chilling.

All this is compelling evidence that the regulatory system is simply not functioning to protect consumers and needs urgent, radical overhaul. We applaud the efforts of the Financial Planning Association to lift standards, but our study starkly shows those standards need a large rocket under them to achieve the required degree of lift.

The Australian Securities Commission is the Commonwealth Government's regulator of this industry, with powers to conduct audits and surveillance, revoke and suspend licences and bring charges resulting in fines and jail terms. It announced a review of licensing in July last year and by January 1995 was about to put out tenders for some research of its own. It hopes to get some results to look at later this year, with any luck, and will then have a think about what should be done regarding licensing.

This might all seem a little leisurely to someone confronted with the need to invest their life's savings or super this week. Our study proves what many have long suspected: thousands of Australians are in the hands of incompetent, sales-driven and, in some cases, dishonest financial advisers right now. Forceful action is urgently needed to protect them.

The vast majority of the industry works on commissions rather than charging straight fees for service: a powerful built-in incentive to give advice which benefits advisers, not their clients.

low income. When she said she doubted she could get such a loan, they even offered to "take care of it" for her.

One of our panelist's comment on this 'plan' summed it up pretty well: "Strange and disturbing. Don't think Mr O is licensed at all." Another noted, on another plan, "Appears no licence". Yet another 'planner', a Legal & General agent (whose plan didn't disclose that he was), was thought to be "acting beyond scope of licence".

We had another case where our trilateral came up against a National Mutual agent who initially refused to give any details of commissions and charges until the client agreed to accept the plan.

... and just plain careless

In other instances the advice was simply bad. One couple was advised to negative gear — borrow \$45,000 extra — to invest in the share market (an extremely high-risk strategy) even though the woman was planning to be out of the workforce for three years to have children. This multiplies the risk to the investor but also the income of the adviser.

One panelist noted none of the plans mentioned so-called 'ethical investments'. In one case a client specifically requested this type of investment from all three planners visited — in particular they asked that none of their money be invested in any company with tobacco interests. Two of the planners didn't even note this request in their client profiles, while the third did then promptly

ceal risk precisely because high-risk products are where they can gain most. Furthermore they say that some of the best and fairest new investment products — those with no entry fees, low management fees and therefore reduced rewards for advisers — are killed stone dead by what amounts to a boycott. Most planners simply won't recommend them.

Action required, now

Our sample of 58 financial plans — all prepared in the same month right across the country — is a good study. Even so,

WHAT CAN YOU DO?

- If you have, or are contemplating, investments in shares or managed funds, consider joining the Australian Shareholders' Association (ASA). It represents investors' rights and acts on their behalf at company meetings and elsewhere. Phone: (03) 598 9616 (Vic); (07) 263 3344 (Qld); or (02) 282 6982 (all other states).
- Another vigorous defender of the rights of investors and agitator for reform is the Australian Investors' Association (AIA). The AIA does not recommend individual financial planners, but it does maintain a list of practitioner members who meet its standards. To get on it, an applicant must charge only by-the-hour fees, possess suitable tertiary qualifications and have genuine investment experience. They must also provide investors with detailed risk estimates and must not give estimates of capital gains, which the association maintains are always fanciful. Contact the AIA on (07) 892 4848, fax (07) 892 3744.
- If you believe a financial planner has acted illegally or unprofessionally in dealing with you, contact the complaints unit in your regional office of the Australian Securities Commission.
- If you know the planner concerned is a member of the Financial Planning Association, contact the FPA on 1800 337 301 or (03) 614 2289.
- If you agree with us that the financial planning industry is in dire need of a major regulatory shake-up, tell the government. Write to: Jeannette McHugh, The Minister for Consumer Affairs, c/- Parliament House, Canberra 2600.



Rebecca, of Coogee, NSW, knows a shark when she sees one, which is just as well. She's an underwater photographer and travel writer but, after her experience in our study, thinks the hazards might be greater on dry land. One of the 'plans' — sales pitch is a more accurate term — she got from some land-based carnivores rated the lowest score of any given by our panel.



Lee, of Adelaide, SA, was less than impressed when her friendly local ANZ planner refused to acknowledge her existence in his letter or even in the plan itself. Even though he'd never met her fiancé Andrew, that's who he addressed himself to, along with the entire plan. "It's his money," she was told. Don't bank on it.

On the bright side, Lee got an excellent plan from an independent planner — it got equal highest score in our study.

NOT A BUYING GUIDE!

This list shows the results of our panel's assessment of 58 financial plans. Those in the bottom section scored a zero for one of our crucial five criteria (see *The bare essentials* on page 15 for an explanation), so they failed irrespective of other scores — though most would have failed on points anyway.

A high score only means the panel rated a plan well against the criteria on our checklist. **It doesn't mean we or the panel endorse the plan or the company it came from.** (Note that just five received what we would call good scores.)

Indeed, the list shows clearly that there is no consistency of quality with companies or types of company whatsoever. Our results unfortunately prove this industry is a lucky dip and its regulation is a shambles.

Planner	Score
GOOD	
Independent 1	79%
Bain & Co 1	79%
Bridges 1	73%
Compound Investment (A)	72%
Godfrey Weston 1	72%

PASSABLE	
Godfrey Weston 2	69%
Bain & Co 2	68%
Independent 2	68%
Bridges 2	67%
National Mutual 1	67%
RetireInvest 1	67%
Westpac 1	67%
Morgan Stockbroking	65%
NAB 1 (B)	65%
Bain & Co 3	64%
Count 1 (C)	64%
Bleakleys (D)	63%
Count 2	63%
Monitor Money 1	63%
CBA 1 (E)	61%
NAMS (F)	61%
Tower (G) 1	61%
MLC 1	60%
Monitor Money 2	60%
National Mutual 2	60%
CBA 2 (E)	59%
MLC 2	59%
National Mutual 3	58%
ANZ 1	57%
Independent 3	57%
Independent 4	57%
Independent 5	57%
Securitor	57%
Westpac 2	57%
MLC 3	56%
NAB 2 (B)	56%
RetireInvest 2	56%
ANZ 2	55%
Independent 6	55%
Bridges 3	52%
ANZ 3	50%
Independent 7	50%
RetireInvest 3	50%

Planner	Score
FAILED ON POINTS	
CBA 3 (E)	49%
AMP	47%
Banner 1	47%
Winchcombe Carson	45%

FAILED ON ESSENTIAL CRITERIA	
Bridges 4	58%
National Mutual 4	55%
Independent 8	49%
Independent 9	47%
Financial Wisdom (H)	46%
Banner 2	42%
ANZ 4	37%
Independent 10	35%
Tower 2 (G) (I)	29%
Legal & General (J)	28%
Independent 11	15%

- (A) Same address as Count.
 (B) National Australia Bank.
 (C) Person actually visited Forsythe's Financial Planning, an authorised representative of Count Financial Services.
 (D) Person initially visited Tower Life, but was referred to Bleakleys.
 (E) Commonwealth Bank of Australia.
 (F) Person visited Allen, Liston & Co, but ended up with a plan prepared by NAMS (National Accountancy Management Services), signed by an authorised representative whom she'd never met from another city.
 (G) Tower Financial Planning.
 (H) Person visited authorised representative Kevin Jones & Associates.
 (I) Ultimate Pensions, aa agent of Tower Life company.
 (J) Umbrella Financial Services, a Legal & General company.

Shopping for advice: your questions answered

The financial planning industry has the look of a lottery with poor odds and very expensive tickets. How can you make sure you don't gamble and lose your life's savings?

FEW OF US are financially sophisticated enough to keep track of the bewildering and volatile superannuation rules, myriad new investment vehicles, stock market fluctuations, real estate prices or taxation and social security laws. Sooner or later, most of us will need advice and it's vitally important that it's good advice. But where can you find it?

Look for a straight fee

People earning any kind of reward for steering you into certain products simply can't give you impartial advice. We recommend avoiding them. The best option for paying a financial planner is to look for one who charges a straight fee for his or her services. In such arrangements, all commissions are paid back to the investor so there's no possibility for the ad-

vice in our study worked this way. See *What can you do?* on page 10 for some advice on finding one.

Who needs financial advice?

We used to think that if we worked hard all our lives and paid our taxes, the government would take care of us when our working days were done. An old-age pension was seen as everyone's right. It's a view that has rapidly fallen from fashion in recent years, not least because the population is aging. Aged pensions as we know them might one day cease to exist or become a shadow of what they are today: a thin 'safety net' for only the poorest among us.

As a consequence we have seen the advent of compulsory superannuation and we'll continue to see the tightening

The best option for paying a financial planner is to look for one who charges a straight fee for his or her services ... such planners might be hard to find.

viser's self-interest to override yours. The charge should be calculated on an hourly rate, so the planner is rewarded for the time and effort put in, but receives the same no matter where the investments are directed.

A planner working in this way will have to charge you whether you accept the plan or not — and the charges are likely to be considerably higher than a token couple of hundred dollars.

For people with relatively small sums, this may not be an affordable option — \$2000 would be a lot to pay for advice on investing a \$20,000 nest egg (though in such a case, a comprehensive financial plan may not be what you need or want, so a planner's fee should reflect these much less complex needs). Also, such planners might be hard to find: very few

of eligibility for social security. The result is that increasing numbers of Australians are reaching retirement age and coming up against a problem relatively few of us have traditionally had to face: what to do with a large amount of money.

If this seems like a problem you wouldn't mind having, consider the consequences of ill-advised investment decisions for people whose standard of living from the day they retire until the day they die will depend entirely on how they arrange their finances now. If you're currently in this situation, chances are you'll need the services of a financial planner.

Large-scale industry restructuring over the past decade has brought to many thousands of Australians the devastating experience of receiving a redun-



dancy cheque. It's vital to get professional advice about how to invest such a payout.

You might also need a financial planner if you manage to save a substantial nest egg or you're fortunate enough to inherit money.

Who's in charge here?

The Australian Securities Commission (ASC) licenses financial advisers. The system currently has different tiers: once an individual or company obtains a licence, they can then employ any number of other people to work as advisers. These are known as **authorised representatives** and it's up to the principal licence holder to ensure they're adequately trained and their work is up to scratch. How well they do this is open to question.

It's widely acknowledged that barriers to entering the industry are very low: almost anyone can become a financial adviser. It's not yet known whether this will change as a result of the ASC's licensing review (see *A word from the regulator, right*), but it's one reason why it's crucial to find out the qualifications and experience of any adviser you deal with (see pages 14 and 15 for help).

Who gives financial advice?

A glance through the *Yellow Pages* will reveal a bewildering array of businesses offering financial advice. These range from small accountancy practices, through brokers, licensed investment advisers, nationwide chains of planners, to banks and insurance companies or their agents.

Anyone giving advice on financial products known broadly as 'securities' (including shares, bonds, debentures, unit trusts and cash management trusts) must be licensed by the ASC or be an authorised representative of someone who is — or, more typically, of a com-

pany that is. The vast majority of planners hold these 'proper authorities', not licences — a real worry since the ASC doesn't directly supervise their recruitment, training or qualifications. That's the responsibility of the licensee.

Many people find themselves on the receiving end of advice from life insurance agents, many of whom are not licensed or authorised financial advisers. They and the products they sell (insurance policies, 'savings plans', personal superannuation, etc) come under the authority of the Insurance and Superannuation Commission (ISC), not the ASC. If they're not licensed financial planners, they can sell you insurance but they can't give you a proper financial plan. Of course, some are both life agent and authorised adviser. The industry needs a single, effective regulator to replace the current mish-mash.

The professional body representing financial advisers is the Financial Planning Association of Australia (FPA) and most of the larger advisory companies are members. In fact, according to the FPA, by mid 1994 its members had 2.3 million clients, a figure it claims had doubled in the previous 12 months.

The FPA has committed itself publicly to raising standards in the industry: ensuring minimum levels of education and experience for advisers, setting higher standards for recruitment and training, and implementing a dispute resolution scheme to allow redress for consumers who feel they have been wronged or misled by an adviser. It says it wants to get rid of the 'cowboys' (or girls) and the dubious image they have created. On the evidence of our study, it will have its work cut out.

One big problem is that the FPA currently has only about 5500 members but there may be up to 30,000 people working in the industry. That means there's not much it can do about the professional standards of the majority of people currently handing out financial advice for a living.

How much will you pay?

The 'up-front' cost of the financial plans in our study varied from zero to around \$500, though some advisers might charge significantly more. Planners differ in the way they charge for their services. Some simply charge an hourly rate, some a percentage of the funds invested, some a fairly nominal fee (such as \$150)

for preparing the plan, which may be waived if you place your investments in their hands. Many, especially banks, don't charge at all — or so it seems.

Such apparently low fees can be highly deceptive when commissions (also called 'brokerage') are taken into account. If you invest \$100,000 in a managed fund which deducts a — fairly typical — 4% entry fee (ie \$4000), out of which it pays the adviser a 2% or 3%



commission, and then charges you a further percentage in management fees every year your money remains there, you're paying thousands rather than hundreds of dollars.

For comprehensive, professional advice on large amounts of money and continuing service to monitor your in-

vestments, such an amount may represent value for money. However, some planners can pocket these sums for a few hours' work drawing up a plan (or punching in your details and having a computer print one out), lodging your money in a fund and precious little else.

'Trailing' commissions are often paid to the planner while your investment remains with a fund. Effectively, you are paying these year after year, since they come out of the earnings on your capital. You might feel this entitles you to some level of continuing service from the planner, and should certainly bear it in mind if you are then asked to enter an arrangement where you pay more for such a monitoring service.

For all these reasons the law requires advisers to disclose clearly all commissions they will receive. Full and frank disclosure is an area some planners have trouble with. Some don't bother at all. Some of the plans in our study met this requirement but in such a poor or confusing manner as to conform to the letter, but evade the spirit, of the law.

The regulations should be greatly toughened to force planners to disclose this information much more clearly and right up the front of the plan.

A WORD FROM THE REGULATOR

LYNN RALPH IS THE DEPUTY CHAIRMAN OF THE ASC, with responsibility for overseeing its current review of the licensing regime for investment advisers. She said she feels quality within the industry is "patchy" but that this is based on anecdotal information rather than hard data. She said the fact that only a fraction of planners are members of the Financial Planning Association (FPA) does make the ASC's job more difficult.

The licensing review will have three broad areas: competency (are the current licence requirements stringent enough?); integrity (are planners disclosing their financial interests adequately?); and investors themselves (better-informed consumers can force more improvements than any regulator, Ralph said). She said there has been a big improvement in disclosure in recent years, again based on anecdotal evidence.

Asked whether the ASC sees consumer protection as one of its roles and whether it is set up to receive complaints, Ralph said it receives thousands of calls every year. People are usually asked to put complaints in writing so they can be assessed. While describing these calls as a valuable source of information, she said the ASC had no systems for analysing this data.

When we told her that our study turned up one plan in five with flaws in its crucial elements, she said, "We know there are problems out there ... I suppose I'm not surprised ... that's why we're having this review." Asked whether she thought the review would result in tightening of licence requirements, she said it's too early to tell. When it comes to lifting standards, she said the industry has to do the work and "if they don't within a few years, then we will".

This is cold comfort for anyone reduced to poverty at the hands of a shonky financial planner while waiting for the ASC to act. Ralph even raised the possibility of the FPA itself one day taking over the licensing of planners from the ASC!

Ralph said no regulator can deliver total protection: "... We should aim for 90% of the people, 90% of the time, giving good advice." On the evidence of our study, the ASC today is about 80% down on this target.

CHOOSING A PLANNER: WHAT TO LOOK FOR

Our study shows the search for a good financial plan is still a hit-and-miss proposition. However, you shouldn't resign yourself to financial helplessness and 'hope for the best'.

Any good financial planner will ask you detailed questions to find out your current financial position and objectives. Before you get to that stage there are some things you need to know. At your first meeting with any planner, satisfy yourself you have good answers to the following questions.

Are you a licensed investment adviser, securities dealer or an authorised representative?

Ask to see the proof: either a licence or proper authority document.

What are the terms of that licence?

Check for yourself. What kinds of products are they allowed to advise on?



Some won't be authorised to advise on direct share investments, for instance. Look for an **Unrestricted Dealer's** or **Investment Adviser's** Licence.

Exactly what will you gain for advising me, including all fees, commissions and trailing commissions?

If you have any trouble getting clear, complete answers, go elsewhere. In some cases the gain is less obvious — for example where the adviser is a salaried bank employee not receiving direct commissions. Ask what incentives, bonuses or benefits of any kind he or she stands to earn.

Are there any connections between you or your company and any of the recommended products?

Some advisory firms are subsidiaries of life or funds management companies. Don't use firms that have obligations to place money with particular funds or companies.

What did you do for a living before becoming an adviser?

'Financial analyst' or 'accountant' are

encouraging answers; 'sales manager' or 'advertising copywriter' are not.

What educational and professional qualifications do you hold?

A degree in economics, commerce or accountancy, Securities Institute of Australia qualifications or the FPA's Diploma of Financial Planning are all more reassuring than a Bachelor of Marketing or no qualifications at all.

How much and what kind of experience with investments and advice do you have?

Look for at least five years' direct experience in investment sales or management, or investment analysis.

What continuing service will you provide and how much will it cost?

Reputable planners talk about the importance of forming a long-term relationship with a client and looking

after their financial well-being over many years. You should ask for detailed explanations and justifications of any charges for this. While such service is important, in some cases in our study the charges were outrageous.

What level of professional indemnity insurance do you (or the company) carry?

Ask for this to be explained in terms of its meaning for you in the event of a claim you might have: "Suppose I lost half my capital owing to your negligence and sued you — are you sufficiently insured to cover it? What if all your clients took similar action?"

What research can you show me (and clearly explain!) to support the recommendations you make?

Much of the so-called research material supporting the financial advice we saw in this study was incomprehensible. If you can't get clear, plain-English answers from a planner about the meaning of research notes and illustrations, we suggest you give them a miss.

WHO CAN YOU TRUST?

Is one type of planner better than another? We assessed four broad types of planning firms. This is how they performed.

Banks

■ **Who we looked at:** ANZ, Commonwealth, National Australia Bank and Westpac.

■ **Points to consider:** Banks account for a large slice of the advice market — perhaps because of their 'safe' image and large, captive audience (it's hard to avoid those "ask us" ads while you're in the queue). Advisers who work for banks are often only able to recommend and sell that bank's own products. They should make this clear to you from the start; by definition, they can't give you *independent* advice.

Also, some banks make much of the fact that their planners are salaried staff who aren't paid commissions. This should be taken with a grain of salt, since some have 'incentive' or 'bonus points' schemes that reward the staff who sell the most.

■ **Our verdict:** If you want the best car available and don't know where to start, you don't go to a dealer who sells only one brand and expect good, impartial advice. This isn't to say the banks' investment products are no good, just that they have a powerful commercial incentive to recommend investments that are good for them over ones that are only good for you.

Life insurance companies

■ **Who we looked at:** AMP, Legal & General, MLC, National Mutual, Tower Financial Planning.

■ **Points to consider:** Many agents of life insurance companies offer advice, but if they're tied to a particular company — and earn their living by sales commissions on its products — that 'advice' certainly isn't objective. An agent who deals only in insurance and superannuation products has no need to be licensed or authorised at all, but they can't advise on securities (such as shares) if they're not. Get clear information on this.

■ **Our verdict:** A responsible, balanced financial plan should embrace a mixture of insurance-type products and securities, so someone who is only a life agent is not in a position to provide one. Also, be wary of the trap of thinking life company investments are naturally secure because of the enormous size and assets of the company selling them. By buying into life insurance products, you're not investing in the company itself. Rather, it is pooling your money and those of many others to invest in other, potentially risky markets such as shares and property.

A FINANCIAL PLAN: WHAT SHOULD IT CONTAIN?

Financial planning chains

■ **Who we looked at:** Bain & Co, Banner, Bridges, Compound Investment, Count, Financial Wisdom, Godfrey Weston, Monitor Money, Morgan Stockbroking, National Accountancy Management Services, Retirement, Secutor, Winchcombe Carson.

■ **Points to consider:** Eight of the top 12 places in our list of final scores were taken by large financial advice chains. This might mean some of the national chains have systems in place to ensure most of their advisers are preparing plans to a certain standard. That doesn't necessarily mean the investments they recommend won't line their own pockets or lose you money, but at least these plans had the basics right. Unfortunately the same companies were equally capable of producing duds — see *Not a buying guide!* on page 11. Also remember that some of these chains act as large funnels to direct money into managed funds operated very profitably by the same company or a parent. Demand to know about any such connections.

■ **Our verdict:** We can't recommend this type of company, despite the good showing of some representatives, since they also appear near the bottom of the list and among the failures — way too erratic to be any use to consumers looking for reliable quality. We have strong concerns regarding what this shows about the consistency of their recruitment and training practices.

Independents

■ **Who we looked at:** A variety of small financial planners including accountants, brokers and licensed independent planners.

■ **Points to consider:** Independent planners accounted for the very best plan produced in our study and also the very worst. Some independents couldn't recommend specific investments because they weren't licensed to advise on securities — one example being an accountant — but still made a reasonable fist of giving general advice.

■ **Our verdict:** There is no consistency whatsoever that enables us to recommend this type of planner. It's simply too much of a lucky dip — fairly representative of the industry generally.

Any good, comprehensive financial plan should include all the elements listed below. If you get one with some missing, ask the adviser to explain why. If the omissions are many or glaring, go elsewhere.

Just because a plan has everything doesn't mean the advice it contains is necessarily good. All investments involve risk. Good advisers should clearly explain and emphasise the risks.

■ **Personal financial data** — the planner should complete a detailed 'needs analysis' covering all aspects of your financial position such as assets, liabilities, income, expenses, net worth, etc, and note this data in the plan. He or she should go through it with

you to make sure all the details are correct.

■ **Your financial objectives** — what are your short, medium and long-term financial needs? Make sure they're all included in the needs analysis and accurately reflected in the plan.

■ **An indication of issues and problems** — should be noted in the plan. Examples might include illness or the need to save for your children's university costs.

■ **Assumptions** — all assumptions in the plan (like inflation, projected earnings on investments, your likely lifespan, etc) should be clearly indicated as such.

■ **Cash flow** — an analysis of all your income, outgoings and money needs for the years the plan is meant to cover.

■ **Tax** — your current position and the tax implications of all recommendations should be thoroughly analysed.

■ **Risk management** — the plan should consider all the risks you face — premature death, illness or disability, etc — and examine appropriate insurance to meet them. All current policies should be noted too.

■ **Current investments** — should be analysed for appropriate risk, growth potential, liquidity and diversification.

■ **Retirement planning** — the plan should analyse your retirement income

needs, when they will arise and the amount of capital needed to generate them.

■ **Estate planning** — the plan should note whether you and your spouse have up-to-date wills and where appropriate refer you to a solicitor for advice.

■ **Recommendations** — should be clearly set out with explanations justifying them.

■ **Implementation** — what you need to do to put the plan into action.

■ **Periodic review** — the planner's intentions regarding regular review of your financial position and investments should be stated. Any extra costs should be clearly noted.

■ **Disclosure** — all commissions and fees you will be liable to pay if you take up the plan must be disclosed both as percentages of invested amounts and in dollars. So must any other bonuses, benefits or advantages that could possibly influence the planner's recommendations.

■ **Outline of the risks** — demand information about your exposure to risk. Remember, markets go down just as often as up. Demand to be told the worst that could happen to any recommended investments and to be shown evidence to support any contention that it won't.

The bare essentials

Our panel agreed on five criteria that were considered mandatory for all plans from the 23 on our checklist. These were:

■ That the plan properly disclosed the adviser's status (such as a licensed adviser or authorised representative of one, a broker, an agent for an insurance company, etc).

■ That it revealed any financial relationships between the adviser and the products recommended.

■ That all commissions the adviser stood to earn if the advice was followed were properly revealed.

■ That recommended investments matched the client's needs and wishes and bore a degree of risk appropriate to their situation.

■ That the plan was technically sound (correct calculations, no breaches of legal requirements, etc).

Consider these points carefully and critically examine any plan you receive against each one. □



analysis' covering all aspects of your financial position such as assets, liabilities, income, expenses, net worth, etc, and note this data in the plan. He or she should go through it with

you to make sure all the details are correct.

■ **Your financial objectives** — what are your short, medium and long-term financial needs? Make sure they're all included in the needs analysis and accurately reflected in the plan.

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■ **Assumptions** — all assumptions in the plan (like inflation, projected earnings on investments, your likely lifespan, etc) should be clearly indicated as such.

■ **Cash flow** — an analysis of all your income, outgoings and money needs for the years the plan is meant to cover.

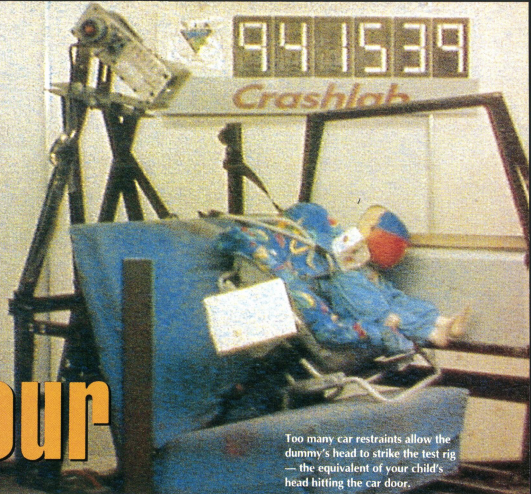
■ **Tax** — your current position and the tax implications of all recommendations should be thoroughly analysed.

■ **Risk management** — the plan should consider all the risks you face — premature death, illness or disability, etc — and examine appropriate insurance to meet them. All current policies should be noted too.

■ **Current investments** — should be analysed for appropriate risk, growth potential, liquidity and diversification.

■ **Retirement planning** — the plan should analyse your retirement income

How safe is your



Too many car restraints allow the dummy's head to strike the test rig — the equivalent of your child's head hitting the car door.

child's car seat?

Parents rightfully expect child car restraints to offer a high level of protection in a car crash. They also expect that all restraints carrying the Australian Standards Mark will perform equally well in a crash, will be easy to install correctly into most types of car and easy to use. Unfortunately some child restraints don't live up to these expectations, according to the results of this major joint project by CHOICE, RTA and NRMA.

In this comprehensive test of car restraints currently available in Australia we tell you which ones:

- Did best in simulated crash testing
- Are easy to install in your car, and
- Are easy to use.

ALTHOUGH ALL CHILD CAR restraints available in Australia offer acceptable standards of safety, we found big differences between the best and worst performers: some products appeared to just scrape through in terms of their compliance with the current Australian Standard, while others exceeded these safety requirements by a healthy margin. We also found significant variations in the ease of use of different restraints and in their compatibility with popular types of motor vehicles.

The results of our tests indicate that some manufacturers need to lift their game and design child restraints for optimum safety. In particular they must improve the performance of their products in side-impact accidents. Standards Australia will be addressing many of the problems highlighted in this study.

Do they make your child safer?

THERE'S NO DOUBT that child restraints work as effective safety devices in a car crash. This has been shown repeatedly in laboratory testing and in real life. A child restraint, when installed and used correctly, offers a child or baby a much higher level of protection from injury than an adult seatbelt. An *unrestrained* child has no crash protection at all and is likely to be seriously injured or killed in a crash.

All restraints sold in Australia must comply with the Australian Standard. The current standard is recognised as the most stringent in the world — children in Australia survive crashes that are considered unsurvivable overseas. Unfortunately, the laws relating to how children and babies should be restrained in cars vary from state to state. Not all states require them to be restrained by an approved device in all circumstances.

All testing for the standard is conducted by the NSW Roads and Traffic Authority's Crashlab (RTA). For our test, we set crash criteria that were even higher than the current Australian Standard. The results show that not all child restraints currently available in Australia are likely to be equally effective in all crash situations.

Until the early 1990s, all but one of the child restraint systems available in Australia were developed and manufactured in this country. Since the introduction of a revised edition of the Australian Standard in 1991, many child restraints submitted for Standards Australia approval have been sourced from overseas and modified to meet Australian performance requirements.

However, some imported models displayed undesirable performance characteristics in simulated crash tests performed at the RTA — characteristics that haven't been observed in tests of Australian-made restraints and which aren't currently addressed by the Standard. It seems some importers may design their restraints to just comply with the Standard instead of aiming to maximise the protection they would offer in a crash.

It's not reasonable to expect child restraints to prevent injury or death in all crashes. It is, however, reasonable for parents to expect they won't behave in a crash in a way which may actually contribute to the potential for injury. Some

of the restraints in these tests allowed head contact with the test rig — the equivalent of your child's head hitting the doorframe or other rigid parts of a car. We recommend you don't buy them (see pages 19 to 21 for their names).

Our other major finding was the relatively low level of head protection given by many of the child restraints, and the complete lack of it in others, in side-impact crashes. These accounted for 27% of all car accidents and injuries to children in one study (see overleaf for details). The relatively poor performance may be an indication that manufacturers generally give a low priority to this aspect of child restraint performance.

The RTA crash test results are detailed for each type of restraint starting on page 19. To ensure your child has the best possible level of protection in an accident, choose a child restraint from the *What to buy* list for the type of restraint suitable for his or her weight and height. Models recommended were the best performers in the crash tests and also had good scores for correct installation and use.

Installing a restraint safely

In a recent study, Royal Automobile Club of Victoria (RACV) specialists found that up to a third of child restraints they looked at were installed incorrectly — some so badly that they could endanger a child's life in a crash. Two of the most common problems were that anchor bolts were loose and seatbelts holding restraints in position were fitted incorrectly. These factors can severely affect a car restraint's ability to perform well in a crash.

Correct installation is a critical factor in ensuring a child restraint offers a high level of protection in a crash. We asked volunteers to install all the models in a car and assessed how often it was done correctly.

To ensure a car restraint gives your child the highest possible level of protection in a crash:

- Read and follow all instructions carefully when installing the restraint and securing your child; note references to common dangerous mistakes and useful travelling safety tips.

- The centre position of your car's back seat is the safest for most restraints.

Correct installation is vital for safety — volunteers trialled it for us.



Booster seats are usually the exception unless you're using a booster with a child safety harness in addition to the adult lap seatbelt. Never use a booster with just a lap seatbelt. If you don't have a safety harness use one of the side lap/sash belts.

- Ensure the top tether strap and the adult seatbelt that keeps the restraint in position are properly adjusted — they shouldn't have any slack.

- Adjust the harness firmly; loose harnesses won't perform well in a crash, and can lead to other problems, such as the child freeing his or her arms. There should be no twists in the harness. When using a child harness with a lap belt, tighten the lap belt first, then adjust the harness.

- Use the minimum number of tether extension straps.

- If you have any problems fitting a child restraint, arrange to have it done by an authorised fitting station.

Our usage assessment also covered putting children into different models of car restraint correctly, and we collected comments on how easy it was to do this and to install the restraints in a car.

Choosing a restraint (and a car to fit it)

ALL INFANTS AND CHILDREN should travel in an approved car restraint, child safety harness or lap/sash seatbelt. You should buy or hire an infant restraint and have it properly installed in your car ready for the first time your newborn baby travels in it.

In 1994 the Child Accident Prevention Foundation of Australia published an in-depth study of car crashes in which child occupants were injured. It provides strong evidence that restraints do reduce injuries.

WHAT TYPES ARE AVAILABLE?

Four types of car restraint with Standards Australia approval are commonly available in Australia: rearward-facing infant restraints, forward-facing child restraints, booster seats and child safety harnesses that can be used in conjunction with a booster seat or ordinary car seat. Our test program focused on rearward and forward-facing restraints and boosters, to help you choose from the different models — our results start opposite.

One segment of the market which has grown in popularity in recent years is the convertible car restraint — it faces rearward as a crib for your new baby, then forward as a seat when your child gets older. See *Convertibles — poor value for money* on page 22 for our verdict on their performance.

IMPERFECT MATCH

In its part of the trial, the NRMA found that some restraints are incompatible with one or more of six common types of vehicle, despite the existence of Australian Standards for car restraint and seatbelt performance and Australian Design Rules for vehicle design. We think this high level of incompatibility between car restraints and cars could lead to more children travelling unrestrained or inadequately restrained and could lead to unnecessary injuries.

In particular, four of the six convertible restraints could only fit into the centre of the back seat in the smaller vehicles and even one of the larger vehicles. Putting them next to either back door made the front seats unusable for an average-sized person. For this as well

as safety reasons (see page 22) we don't recommend you choose a convertible.

The NRMA study shows that hatchbacks may not be the best cars for families with young children. They may have anchorage points in the back panel of the car, resulting in the luggage area having tether straps running through it, a potential hazard in a crash. Many hatchbacks also have a back seat split in the middle, and may not have a middle anchorage point — you may not be able to use a child restraint in the middle position.

If you're buying a car, check the following compatibility issues:

- Make sure there is a centre rear anchorage point if you want to use that seating position for a child.
- Make sure the anchorage points aren't too close to the seat back for the tether strap to be adjusted properly — some cars are known to have this problem.
- Ensure seatbelts are long enough to thread through the restraint when it's in its most extended (reclined) position.
- If buying a hatchback, check there is a clear path between the back seat and the rear anchorage point so that the parcel shelf doesn't interfere with adjustment of the tether strap.
- Two-door cars make fitting and using restraints particularly difficult.
- Choose a car that will carry the number of restraints you need. Not all cars have big enough back seats to carry three restraints at the one time.

WHICH TYPE OF RESTRAINT FOR WHAT AGES?

How do you know which type of restraint (forward or rear-facing, or a booster seat) is appropriate for your child, and for how long? Well, our test program shows you can't always rely on manufacturers' claims to tell you which type of restraint would be the most appropriate. For instance, most manufacturers of booster seats claim their products are suitable for children weighing up to 32 kg. This is the weight of an average 10-year-old.

We don't think many 10-year-olds use booster seats anyway, but if they did, they might not be getting the head and



Hundreds of parents and children helped us assess how easy it was to fit a child into each restraint.

neck protection they need in a crash in cars without head rests. In fact, they might be more exposed to injury in a crash than if they were strapped into a normal lap/sash belt in the rear seat (see *Booster seats* on page 21 for details).

It's also difficult to know when your baby's ready to move from a rearward-facing to a forward-facing restraint, and then when your older child's ready for a booster. *Suitable for* in our assessment of each type of restraint gives some help with this. We tell you which is the most appropriate for your child's weight, height and stage of development and, within the types, which models rated best for safety and correct use.

BUYING SECONDHAND

The secondhand market for child car restraints is huge, but should be approached with caution. Unless you're buying from someone you know, it will be almost impossible to check its history — it may have had several owners and it may have been in an accident. Don't buy it if it has or if you can't verify that it hasn't. In addition:

- Don't use a restraint that's more than 10 years old. Check with the manufacturer if you're not sure of the age of a particular model.
- Check the harness straps aren't frayed or damaged or they may fail in a crash.
- Test out the buckle and adjusters to be certain they're in working order.
- Check the plastic mouldings and metal frames for signs of stress or cracks.

You can also rent or hire restraints; check with your local maternity hospital or community health service.

Rearward-facing infant restraints

■ **What we tested** (in alphabetical order)
APRICA Series 1500 (Convertible)
CENTURY 1500C (Convertible)
CENTURY Baby Shuttle 562
CENTURY Baby Shuttle 572
CENTURY Maxi 2500 (Convertible)
KLIPPAN Two Way K1160 (Convertible)
KLIPPAN Carrytot K1180
SAFE-N-SOUND Baby Safety Capsule
(Series 2031)
SAFE-N-SOUND Galaxy Recliner
(Series 7000) (Convertible)
SECURE CS4 Multi-Recline (Convertible)

■ **Suitable for:** Babies weighing up to 9 kg or up to 70 cm long. Wait until your child has good head control before moving him/her out of this type of restraint into a forward-facing one, usually around six months of age.

CRASH TEST PERFORMANCE

All these restraints met our performance criteria for both head-on and side-impact crashes and all pass the Australian Standard.

However, the standard will soon be amended to place a restriction on the amount of movement a test dummy's head can experience in head-on crash tests of this type of restraint. If the dummy's head moves out of a certain area, the restraint will fail compliance testing.

This has come about as a result of concerns about a number of existing infant restraints which tend to rebound rearwards during frontal, rear and roll-over crash testing, allowing the test dummy's head to come into contact with the test rig. If this problem is not properly addressed by the standard, children could be unnecessarily injured in crashes. Restraints which failed to meet the suggested criteria aren't included in our *What to buy* list.

Both CENTURY Baby Shuttles and the KLIPPAN Carrytot performed particularly poorly in this respect in the head-on crash tests. They tended to move forward upon impact and then into an almost vertical position. This is desirable for force distribution. However, in rebound they were propelled towards the rear seat, still in the vertical position, pushing the dummy fully into the seat back.

The KLIPPAN Carrytot was thrown against the seat back with such force that the restraint continued on over the top of it and appeared to hit the metal column to which the top end of the seatbelt

was anchored. Note this model has now been replaced with the CARRYTOT Royale K2270, but the changes made may not have a significant effect on crash performance.

Other restraints which allowed head contact were the APRICA, CENTURY 1500C, SAFE-N-SOUND Galaxy and SECURE — all convertibles. This makes them poor value for money; we don't recommend using them in this rear-facing infant restraint mode.

Standards Australia is currently involved in international standards development of improved side-impact protection requirements.

In the side-impact testing, not all restraints were able to keep the dummy's head from being thrown out of the confines of the crib. Four restraints, the CENTURY Baby Shuttle 562 and 572, KLIPPAN Carrytot and SECURE CS4 Multi-Recline, allowed direct head contact with the door structure in the 90° side-impact test; none of them has prominent enough side wings. The level of protection in all the restraints could have been improved through the use of energy-absorbing material on the internal surfaces, and through manufacturers paying greater attention to design detail.

Inverted testing was designed to assess whether a child could fall out of the restraint during a rollover crash. None did, but four models, the KLIPPAN Car-

rytot, the two CENTURY Baby Shuttles and the CENTURY 1500C, rotated to the point where they allowed the dummy's head to hit the back of the test seat. We say this is not acceptable.

CORRECT USE

The SAFE-N-SOUND Baby Safety Capsule rated highest for correctness of installation in a car; the KLIPPAN Two Way rated lower than average. When parents were asked to put their child into a restraint, the APRICA and SECURE CS4 had higher correctness scores than average. However, poor scores in the crash tests override any good performance in other parts of the trial.

COMPATIBILITY

■ Not surprisingly, it's generally harder to manoeuvre the crib of the SAFE-N-SOUND Baby Safety Capsule in the small and medium-sized hatchbacks.

■ Some restraints were found to have compatibility problems with most of the cars in the NRMA trial. The APRICA, for instance, was difficult to fit correctly for varying reasons into the large family sedan, small hatch, medium-sized hatch, eight-seater people mover and four-wheel drive.

WHAT TO BUY

SAFE-N-SOUND Baby Safety Capsule \$129
Price is based on nationwide checks in December 1994.

SAFE-N-SOUND BABY SAFETY CAPSULE

Good points

■ Its motion was well-controlled in head-on crash tests and it ranked either first or second for the way it managed the crash forces.

■ Overall it was able to comply with changes being considered for inclusion in the Australian Standard — it was the only restraint that didn't tend to rotate rearward.

■ Overall, it was the outstanding performer in both our installation and usage trials.

■ The NRMA found no significant vehicle compatibility problems. It was relatively compact and readily compatible with most types of vehicle.

Bad points

■ Its deep design seems to reduce air circulation, so don't leave your baby in the capsule for long periods of time; it's also difficult to see the baby in the restraint from the front seats of the car.

■ A weaker person may have difficulty manoeuvring the crib into the shell.



Forward-facing restraints

■ What we tested (in alphabetical order)

APRICA Series 1500 (Convertible)
CENTURY Recliner 1200C
CENTURY 1500C (Convertible)
CENTURY Maxi 2500 (Convertible)
KLIPPAN Recliner K1150
KLIPPAN Two Way K1160 (Convertible)
SAFE-N-SOUND Eclipse
SAFE-N-SOUND Galaxy Recliner (Series 7000) (Convertible)
SAFE-N-SOUND Series 3 (2nd Edition)
SECURE Multi-Recline CS4 (Convertible)

■ **Suitable for:** Children weighing between 8 kg and 18 kg. **This type of restraint performed much better in the RTA's head-on and side-impact crash tests than the booster seats.** This and previous results indicate that children should be kept in forward-facing child seats until the restraint is too small. One way to check that your child is the right size for this type of restraint is to ensure that his or her shoulders are no higher than 25 mm above the slots for the shoulder harness straps. If they are, he or she is too big for the restraint.

CRASH TEST PERFORMANCE

The restraints were assessed to see how much they allowed the dummy's head to be forced forward during crash tests at a simulation of two different speeds. The APRICA allowed significantly more movement of the dummy's head than the best-performing restraints in both these sets of head-on crash tests, and the two KLIPPANs in the faster ones. Movement of the head in this fashion makes the child particularly vulnerable to injury.

The CENTURY Maxi 2500 actually broke in the head-on crash testing at the higher speed, suggesting that it may only just scrape through in terms of complying with the Australian Standard. For this reason we can't recommend it.

In the 90° side-impact tests, all the restraints hit the door and the dummy's head came into contact with part of the interior of the restraint. The dummy's head came out of the SECURE CS4 and then into contact with the door structure. A new version of the SECURE CS4 is due for release about now (April) but the changes don't appear likely to improve its crash performance.

In the 45° side-impact tests, all the seats allowed the dummy's head to move to such an extent that it made contact with the door. Clearly this type of restraint is very limited in the extent of head protection it can provide in this

type of crash. Their design needs to be improved to give children better protection in side-impact tests.

Overall the SAFE-N-SOUND Series 3 and Eclipse and the CENTURY 1200C were the best on crash criteria.

EASE OF USE

The CENTURY Recliner 1200C and Maxi 2500 were ranked higher than average for ease of installation in a car and securing the child in the seat. The CENTURY 1200C also had higher than average scores for correctness of installation. All three CENTURY restraints scored higher than average for correctness of securing. The two KLIPPANs and the SECURE were the most difficult to install and secure a child in.

Triallists liked restraints that gave a good range of adjustment heights for harness straps — this helps to ensure your child won't grow out of the harness

before he or she reaches 18 kg. Parents are reporting their children outgrowing some restraints way before they reach the maximum weight stated by the manufacturer. The CENTURY 1200C had limited shoulder height adjustment compared to the recommended SAFE-N-SOUNDS.

COMPATIBILITY

When buying a car, check that the back seats aren't deeply contoured — this can make it difficult to correctly position some restraints which have recliner bars. Small hatchback cars also make it difficult to reach over the seat to attach or adjust the tether strap on many forward-facing restraints.

WHAT TO BUY

SAFE-N-SOUND Series 3 (2nd Edition)	\$135
SAFE-N-SOUND Eclipse	\$135
CENTURY Recliner 1200C	\$175

Prices are based on nationwide checks in December 1994.



SAFE-N-SOUND SERIES 3

Good points

- Equal highest scorer in crash testing.
- Relatively easy to install in all types of vehicle.
- Trialists liked range of harness adjustments.
- In all vehicles assessed for compatibility, it was stable on the seat in both upright and reclined positions.



SAFE-N-SOUND ECLIPSE

Good points

- Equal highest scorer in crash tests.
- Trialists commented that it had an excellent range of harness adjustments.
- Relatively easy to install in all types of vehicle.



CENTURY 1200C

Good points

- Equal highest scorer in crash tests.
- One of the top scorers in our installation and usage trials — it did better than average for correct installation and was consistently preferred by trialists.

Bad points

- A locking clip is needed to hold the lap section of an adult seatbelt in place while allowing the sash section to retract as usual when installing; this may be lost or misused, which may affect the stability of the restraint.
- Consider the size of your child before purchasing the CENTURY 1200C. Its maximum shoulder harness adjustment is lower than in the two SAFE-N-SOUNDS.

Booster seats/cushions

- **What we tested** (in alphabetical order)
- CARESSE (with back)
- KIDDY-SAFE (with back)
- KLIPPAN Easy Rider (with back)
- KLIPPAN Optima (without back)
- SAFE-N-SOUND Comet (without back)
- SAFE-N-SOUND Cruiser (with back)
- SAFE-N-SOUND Hi-Rider (without back)
- SAFE-N-SOUND Travel-Safe (with back)

■ **Suitable for:** In general, manufacturers recommend them for children weighing 14-21 kg with a child safety harness or 14-32 kg with an adult lap/sash seatbelt. But their crash test performance (see below) casts doubt over their suitability for children at the high end of this weight range.

CRASH TEST PERFORMANCE

Booster seats offered the lowest level of crash protection of any of the restraints in the program. Their real weakness is in side impacts, where the backless cushions performed particularly badly.

All the boosters complied with the Australian Standard requirements in head-on and side-impact tests. However, in the head-on tests, the dummy moved down under the lap section of the seatbelt in the CARESSE and to a lesser extent in the SAFE-N-SOUND Cruiser. The soft-foam CARESSE restraint was compressed, allowing the dummy to move further forward than in any other booster seat. This kind of movement has the potential to contribute to serious injury.

In side-impact crashes all the boosters allowed the dummy's head to come into direct contact with the door. The backless cushions are particularly ineffective in this type of crash and can't be recommended. In fact, CHOICE believes these test results indicate that the CARESSE, KLIPPAN Optima, SAFE-N-SOUND Hi-Rider and SAFE-N-SOUND Comet should be removed from the market — they gave significantly less protection than the boosters with backs in the 90° side impact crashes. If you need to buy a booster seat, make sure it has a back and prominent side wings. Don't buy a cushion booster.

We believe boosters shouldn't be used at all if they raise the child's eye height beyond the top edge of the car seat back or the booster seat back. In fact, around 50% of children weighing 32 kg (an average 10-year-old) could be put at risk of injury, particularly in rear-end collisions, if they were to use these devices in cars without rear seat head

rests because of the lack of support to a child's head and neck in a crash.

We found that in cars without head rests, this dummy's eye height was at least 35 mm above the booster seat or car seat back. We think making claims of suitability up to 32 kg is a marketing gimmick.

EASE OF USE

We didn't include booster seats in our trials as they are relatively straightforward to use and install in most cars.

COMPATIBILITY

The NRMA confirmed the RTA's concern that the 10-year-old dummy often had its eye height above the seat back in vehicles without head rests on their rear seats. This was found to be a problem with all boosters in the large family sedan, the large station wagon and the small hatchback.



KIDDY SAFE

Suitable for children weighing 14-21 kg, it can be used with an adult lap/ sash seatbelt or a child safety harness. It has a sash guide which helps to keep the upper part of an adult seatbelt in a safe and comfortable position.



KLIPPAN EASY RIDER

It has a sash guide and a detachable head restraint insert.

WHAT TO BUY

We can't recommend backless booster cushions at all. In addition, we can't recommend the CARESSE soft-foam seat with a back because of its tendency to crush and allow the child to slip down and forward in a crash.

The other booster seats with backs are rated equal. As a general guide, buy a rigid booster with a back, side wings and a sash guide to keep the seatbelt in place — all the recommended ones are like this. Use your booster with a safety harness or lap/sash belt (never with just a lap belt).

KIDDY-SAFE	\$55
KLIPPAN Easy Rider	\$68
SAFE-N-SOUND Cruiser	\$159
SAFE-N-SOUND Travel-Safe	\$75

Prices are based on nationwide checks in December 1994.



SAFE-N-SOUND CRUISER

Not suitable for use with a child safety harness. It has a vertically adjustable head restraint and built-in guides for the sash part of an adult seatbelt.



SAFE-N-SOUND TRAVEL-SAFE

Has a folding seat back. It folds compactly and has a sash guide for an adult seatbelt.

Convertibles — poor value for money

■ **What we tested** (in alphabetical order)

APRICA Series 1500
CENTURY 1500C
CENTURY Maxi 2500
KLIPPAN Two Way K1160
SAFE-N-SOUND Galaxy
SECURÉ CS4 Multi-Recline

We assessed the convertibles' performance as both rearward-facing infant restraints and forward-facing child restraints — hence they are already discussed in both those sections of this article. In terms of their crash test performance, convertibles didn't generally offer the same levels of protection given by a 'dedicated' rearward or forward-facing restraint. The overall level of crash protection they offer seems to be a compromise — perhaps because of the way they're designed to operate in two totally different modes.

If you still want to buy a convertible child restraint, the KLIPPAN Two Way performed reasonably well in crash tests in the rear-facing mode (for babies weighing less than 9 kg) but was below average when facing forward. Other models did perform better in the crash tests. While it's the only convertible worth looking at if you really want this type of restraint, it's not included in our *What to buy* lists for either rearward or forward-facing restraints because it consistently scored poorly in our installation and usage trials. However, it's more compact in size than other convertibles. As noted in *Imperfect match* on page 18, the length of the convertibles can make them difficult to fit in some cars.

■ **Our verdict:** Convertibles represent poor value for money when you consider their comparatively weak crash test performance. A convertible costs about the same as the combined price of a rearward-facing and a forward-facing restraint anyway. Parents pay for a convertible in the expectation that they're buying optimal protection for their child from the time it is a newborn baby through to when it's old enough to use an adult seatbelt. Our results indicate that most simply don't provide that optimal level of safety.

What we did: the child restraint assessment program

Early in 1994, CHOICE, the NRMA and the Roads and Traffic Authority of NSW (RTA) agreed to participate jointly in a program to assess the relative performance of all currently available child restraints in terms of their crash test performance, their installation and use, and their compatibility with a range of cars.

Standards Australia sets a minimum performance standard. However, the crash test component of the program, done by the RTA, resulted from laboratory evidence that suggested some restraints that complied with the Australian Standard displayed undesirable performance characteristics in some crash situations that weren't currently addressed by the standard, while others more than met its requirements. We therefore decided to test beyond the current standard.

The crash testing revealed that some restraints perform better than others when subjected to a test program more stringent than that currently required under the standard. This information should be of great concern as it is evidence that some restraints won't perform as well as others in a crash.

A crash sled was used to subject test dummies in restraints to forward, rearward, sideways and rollover deceleration, simulating what would happen in various types of car crash. Each restraint was tested twice as if in a head-on crash at two different impact levels. The rear-facing infant restraints were also subjected to an inverted test to assess how they would perform in a rollover crash. Booster seats weren't tested from the rear. The dummies represented children ranging in size from 4 kg to 32 kg.

The side-impact tests included a simulated car door structure to assess whether the dummy's head struck any part of the car ('head strikes'). Head Injury Criteria (HIC) measurements were used to compare the performance of the various restraints. HIC values are usually used to show the likelihood of head injury in adults. They are a calculation of the intensity and duration of forces applied to the head in a crash. The higher the HIC value, the higher the likely severity of head injury. There is no direct indicator of the likelihood of head injury in children, but we think HIC is an appropriate measure for looking at the comparative performance of child restraints. Those restraints which gave low HIC values were deemed less likely to cause head injury in children than those with higher HICs.

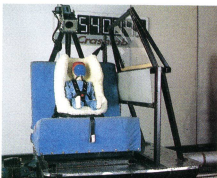
CHOICE conducted user trials on rearward-facing infant car restraints and forward-facing child car restraints to evaluate how easy they were to install in cars and use with a child once in the car — and more importantly with regard to safety, whether the trialists could do this correctly. (Trialists were volunteer parents and their children.)

The NRMA component of the test program identified a number of problems with the fitting of different restraints to certain types of car. All the restraints were assessed in both the centre and left outside positions of the back seat. Each of the test vehicles was one of the top-selling models in each of the following six categories: large sedan, large station wagon, small hatchback, medium hatchback, multi-purpose vehicle ('people mover') and large four-wheel drive.

Car restraints made it onto our *What to buy* lists if they:

1. Passed the crash tests that were much tougher than the current Australian Standard.
2. Scored well for being installed and used correctly, and for ease of use.

All the other restraints comply with the existing Australian Standard and would therefore offer acceptable safety performance, according to the NSW RTA. They're certainly better options than adult seatbelts or no restraint at all for small children — but those we recommend are better.



The RTA crash sled was used to simulate what would happen to the restraints in different types of car crash.

TREATS

Champagne (Moët & Chandon)

Switzerland	24
Italy	29
Zimbabwe	29
Belgium	34
Spain	35
France	36
Uruguay	37
UK	38
Germany	39
USA	40
Canada	40
Netherlands	44
Argentina	45
South Africa	47
Singapore	48
Australia	50
Finland	50
Ireland	52
Austria	53
Fiji	58
New Zealand	64
Hong Kong	69
Japan	79
Chile	80
Russia	90
Brazil	106

Theatre ticket (Phantom of the Opera or similar)

Fiji	6
Zimbabwe	8
India	8
Chile	11
Russia	13
South Africa	14
Uruguay	16
Brazil	19
Indonesia	29
Hong Kong	32
Spain	32
Finland	34
France	37
UK	37
Italy	39
Belgium	42
Ireland	44
Austria	50
Netherlands	50
Argentina	53
New Zealand	55
Singapore	68
USA	74
Australia	75
Canada	79
Germany	104
Switzerland	113
Japan	159

Toblerone (per 200 g)

Belgium	1.90
Ireland	2.90
Russia	3.00
Spain	3.00
Australia	3.10
Switzerland	3.10
UK	3.10
Netherlands	3.20
Canada	3.30
Italy	3.70
Austria	3.80
Hong Kong	4.00
USA	4.00
Singapore	4.10
Uruguay	4.10
Indonesia	4.80
Germany	5.20
Finland	5.90
India	5.90
South Africa	6.10
Chile	6.40
New Zealand	6.70
Fiji	7.70
Argentina	7.90
Japan	7.90

All prices in Australian dollars (to nearest dollar for champagne and tickets and nearest 10 cents for chocolate), based on exchange rates quoted in the *Australian Financial Review*, February 6, 1995.

Note that the prices are not related to local income levels and are therefore most useful as a gauge of what the Australian dollar will buy in the countries named.

How green is your home?



You can do a lot of little things to reduce your impact on the environment, conserve natural resources, reduce pollution and save money in the long term.

GREEN ISSUES are firmly back on the public agenda and government campaigns urge us to conserve water and reduce waste. But do people actively support these measures? How aware are we about the effects our lifestyles have on the environment? And what are people doing on an individual level to reduce the impact?

To find out we visited six households in Melbourne, Hobart, Adelaide, Perth, Darwin and Cairns — to represent the cool temperate, warm temperate and tropical climate zones across the country. We asked lots of questions, took a good look around the homes and properties and even checked out some cupboards. Our sincere thanks go to all the householders who co-operated so well, opened their doors to us and patiently answered all our questions.

The households we surveyed were environmentally aware and tried to reduce their impact on the environment in a variety of ways. Hints on how they — and your household — can perform even better environmentally are given in this article. You may not be able to incorporate all suggestions, but the questionnaire on pages 30 and 31 covers the major areas of concern and will help you identify things you can improve on.

There are many other ways in which you can contribute to a greener environment. Ask your local council what measures it's supporting to reduce the burden on the environment. Can you get council assistance to install a solar hot water system? Is the council promoting composting? Lobby it for communal composting facilities or communal vegetable gardens. Encourage your local supermarket to take back plastic shopping bags. Talk your employer into buying recycled and unbleached office paper, and recycle it.

If you rent a flat in a high-density urban area, you may feel there's more you'd like to do, but you can't because facilities are lacking or it isn't up to you to change practices or equipment. Try and talk to your landlord or the representative of the body corporate and encourage them to take environmental principles into account when the next work has to be done or appliance bought.

These are just a few suggestions. If you put the environment at the top of your agenda, we're sure you can think of more.

Saving energy

PER CAPITA, AUSTRALIA IS AMONG the highest greenhouse gas producers in the developed world; every Australian produces 30 tonnes of greenhouse gases each year, three times the world average. Energy use at home generates about 10% of our total greenhouse gas emissions, the major contributors being water and room heating, refrigeration and cooking. How much greenhouse gas your energy consumption releases depends on the fuel source. Except for energy from renewable sources (such as hydro-electric, solar or wind), all other sources produce greenhouse gas, but natural gas produces less than coal-generated electricity. The energy-saving hints below indicate where you can make significant contributions to lowering Australia's high emission levels and save money.

Steaming hot

Hot water systems are energy guzzlers. They can consume up to half the energy used in your household. Many of the water conservation hints on page 26 will also reduce your energy consumption.

■ When you next replace your hot water system or heater, seek advice from your energy supplier or energy information centre. Consider a solar system; our January and March 1995 issues give details of how to buy them more cheaply with an EnergyCard. With any hot water system, look for a thermostat you can adjust. Heating water to more than 60°C is wasteful and can cause scalds.

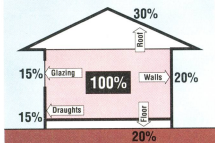
■ A hot water tank is best located close to where you frequently use small quantities of hot water (such as in the kitchen). To reduce heat losses, insulate the pipes and put a special thermal blanket around the tank.

■ Washing clothes in cold rather than in warm water will save energy and money. Some of the washing machines we tested for the September 1994 issues of CHOICE used up to 14 times as much energy for a warm as for a cold wash.

Keeping heat in or out

■ In winter, only heat the rooms you use and consider maintaining a slightly lower temperature. A one degree increase in temperature can add 10% to your heating bill and to the amount of greenhouse gases released.

■ Adequate insulation is the first step to an energy-efficient home — and it's the area all the households in our survey could improve on. Simple additions such as draught excluders at the bottom of doors and heavy curtains, preferably with a boxed pelmet at the top, can help retain the warmth inside and keep cold air out. See below for how much heat you can lose without insulation.



Heat lost without insulation (brick-veneer).

One of our cool-climate households, the Hall family in Hobart, had the highest energy consumption (electricity and gas combined) per household member in our survey. The Melbourne household's gas consumption (used for hot water, heating and the cooktop) was sometimes more than four times as high in winter than in summer months. Both families could significantly reduce their heating costs if they installed roof insulation — the Watsons in Melbourne have already started.

■ Heat escapes through the tiniest gaps — around windows and doors, between walls and skirting boards or ceilings, between floorboards, through air vents and up unused chimneys. While air flow is desirable in hot climates, it will waste energy and add to your heating costs in winter if you live south of the tropics. Try to close gaps, but allow for some ventilation, particularly if you're using an unflued gas heater or stove.

■ In hot and dry climates, keep your windows and curtains closed during the day and open them when the temperature drops at night. In hot and humid conditions, allow for as much natural ventilation as possible. See *Air conditioning?* No thanks on page 29 for some

The Childs' Darwin house is built for a tropical environment and incorporates passive solar design principles that reduce their energy use.

useful hints on how the Childs in Darwin keep their home reasonably cool without the use of air conditioners. Their energy consumption was the lowest per person among our households.

Energy-efficient building

The principles of energy-efficient housing are relatively straightforward: let the sun provide free winter heating; use the right amount of mass (heat-storing building materials such as brick, concrete, mud brick or stone) to soak up daytime sun and radiate warmth at night; create sufficient shade to keep the summer sun out, and insulate ceilings and walls. For a detailed report on how to incorporate passive solar design principles into your building or renovation plans, see *Living in the comfort zone* in the October 1993 issue of CHOICE, or seek advice from your local energy or building information centre.

■ Save on lighting. Compact fluorescent light sources last much longer and use much less energy than incandescent (ordinary) light bulbs. They're relatively expensive to buy, but economical in areas where you need light for longer periods. Switch off lights (and appliances) when you leave a room.

Transport

WITH ONE EXCEPTION (see *Life without a car* on page 29), all the households we surveyed regularly used at least one car for trips to work, school, shopping and recreation. That's typical of the average Australian household and reflects our heavy reliance on the car — for convenience or out of necessity. In outlying suburbs, public transport is rarely adequate for convenient travel; outside major townships, services may not exist

at all. Urban sprawl and lack of facilities in suburbs encourage the use of cars, so major improvements to public transport systems are necessary to reduce road congestion and car exhaust fumes (we'll report on air pollution in a future issue).

■ Leaving the car at home and walking or cycling short distances will contribute to cleaner air and you'll get exercise at the same time. You could also join or establish an action group if public transport is lacking in your area, or lobby your council for bicycle paths.

The car is also a major contributor to the greenhouse effect. If you drive about 20,000 km a year in an average car with a 2 L engine, the car releases about 250 g of greenhouse gas per kilometre, or almost five tonnes each year.

■ Reduce the number of trips you make by car, especially short trips or driving on your own. Use public transport if available, car pool with neighbours or colleagues, or combine trips.

■ Use unleaded petrol, if your car allows (see *Getting the lead out* in the October 1994 issue of CHOICE) or half-leaded petrol, where available.

■ If you buy a new car, choose a fuel-efficient model. The Commonwealth Department of Primary Industries and Energy has published a fuel consumption guide which is widely distributed to service stations. Or contact the department or your traffic authority for a copy.

■ To reduce your car's fuel consumption, drive at a moderate speed, keep the engine well tuned, maintain the recommended tyre pressure and remove unnecessary items (including roof racks) when not in use.

■ Holiday trips also contribute — about five tonnes of greenhouse gases are re-released per person on a return plane trip to London!

Conserving every drop

AUSTRALIA IS THE WORLD'S DRIEST continent and is frequently drought-affected. Careful use of water is important, yet the average Australian household still uses most of its water in the garden; showers and toilets are the next biggest water users.

Conserving water doesn't mean you have to neglect your garden, laundry or personal hygiene. Far less drastic conservation measures can significantly reduce the amount of water you use. While some only require changing old habits, others will cost you initially for water-saving devices. However, the amount of water you save over time will recoup your costs in the long run and help conserve this precious resource.

In the bathroom

- The most obvious water (and energy) saver in the bathroom is to reduce the time spent under the shower and the depth of a bath. An average shower head uses between 10 and 15 L of water per minute; large ones may use up to 30 L.

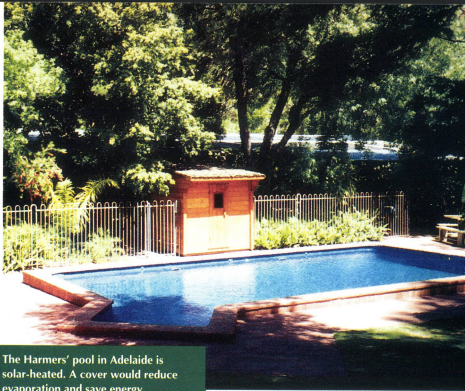
- Various types of low-flow shower head reduce the amount of water used for showering to 12 or 9 or 6.8 L or less per minute, depending on the water efficiency rating. The more 'As' on the label, the less water is used — see *Every drop counts* on page 4 of the February 1995 issue for details.

- A standard single-flush toilet uses roughly 11-13 L of water per flush. Most dual-flush systems have a reduced flush volume of 9 and 4.5 L. A dual-flush system with a 6 and 3 L volume is also available, but it requires a special pan — an option worth considering if you're installing a new toilet.

- In older toilets, a 2 L plastic bottle filled with water and placed in the cistern can reduce the amount of water per flush by up to 18%.

- Use the plug in the sink or handbasin rather than keep the water running when you brush your teeth or shave — and when you wash vegetables in the kitchen.

- A tap dripping at one drip per second can waste 7000 L of water in a year, a steady dribble hundreds of thousands of



The Harmers' pool in Adelaide is solar-heated. A cover would reduce evaporation and save energy.

litres. Check your taps for leaks and fix them promptly.

- Aerating taps can cut water flow rates by up to 50% without noticeably affecting the water flow.

In the laundry and kitchen

- Only use a washing machine and dishwasher for a full load. If your washing machine has a suds-saving option or water level control, select it when appropriate. Front-loading machines are generally more water and energy-efficient than top loaders or twin tubs.

- If your dishwasher has a fast wash or economy cycle, use it for lightly soiled loads and save on energy and water. It's more energy-efficient to connect a dishwasher to the cold tap only and let the internal heater warm up the water.

In the garden

- Water your garden in the early morning or evening only; otherwise too much is lost to evaporation. With automatic watering devices, make sure they don't waste water on the driveway or footpath and remember to turn them off during and after rain. Better still, water plants manually as they need it.

- If you're establishing a lawn, select a grass species which requires little water.

- Reduce your lawn area if you live in a drought-prone area. Water it less frequently over summer, don't cut the grass shorter than 2 cm and leave the clippings on top after mowing. Thorough water-

ing once a week is better than shorter daily watering.

- Native plants usually require less water than annuals or exotics. Think of their height when planting them and create a canopy to provide shade for smaller plants — and for indoor living areas.

- Wash your car on the lawn rather than in the driveway, and use a bucket rather than a hose.

- Pools use large amounts of water and chemicals and aren't a good environmental choice. If you have one, use a cover to reduce evaporation. If the pool is heated, the cover will also save energy.

- Check with your local council whether you can install a rainwater tank or collect rainwater from your guttering downpipes for use in the garden or other non-consumption purposes.

- You might be able to reuse your 'grey water' (domestic waste water excluding toilet waste) for non-consumption purposes. Consult your water or sewage authority or local council for consent or a licence. It's probably OK to water the garden with grey water, but to be on the safe side, use only the rinse water from your washing machine and vary the areas where you use grey water to avoid an accumulation of chemicals in the soil. Don't use waste water from the dishwasher as the detergents are too alkaline. For hygiene reasons, only use grey water on plants which will not be eaten, and if any member of your household is ill, don't reuse it at all.

Choosing the right products

MOST OF THE ENVIRONMENTALLY driven decisions you make when choosing products will also save you money in the long run. You'll particularly notice the difference with large appliances such as washing machines, clothes dryers, dishwashers, fridges and freezers. All but one of the households we surveyed thought they might have to buy at least one major appliance in the next two years. Buying an energy and water-efficient product will save them money and reduce their environmental impact.

■ When you next buy a new appliance, aim for a product with an energy efficiency and/or water efficiency rating label, if appropriate. The more stars or As the better. Six stars indicate maximum energy efficiency, three As maximum water efficiency. Fridges are one of the heaviest energy users in your household. You can save up to 73% in energy consumption with a four-star rated fridge compared with a two-star model, and as much as 36% if you choose a four-star over a three-star model.

Recycled and recyclable

■ Choose recycled and unbleached paper over products made from virgin paper pulp. It will help conserve timber and can reduce the amount of energy and chemicals used in paper production.

■ Look for recycled items when you're building; common items such as toilets and handbasins are frequently sold secondhand. See *The good wood* in the February 1995 issue for advice on alternatives to virgin timber when you're building.

■ If you use batteries regularly, buy a charger and rechargeable batteries and return them to the distributor when they can no longer be recharged. (For details see *Phasing out the nasties* in the February 1995 issue of CHOICE.)

Food and packaging

The Halls in Hobart have a reasonably large garden plus a vacant lot outside the suburb where they grow all their fruit and vegetables in summer. It significantly reduces their need for prepackaged food.

■ Try and eat less meat because its production generally uses more land and resources than growing crops. In many areas throughout Australia cattle grazing significantly contributes to land degradation, and cattle produce methane, a greenhouse gas.

■ If you don't grow your own produce, buying fresh rather than processed food is the environmentally preferred choice. Packaging is resource and energy-intensive and creates waste, though it may sometimes be necessary for safety reasons.

■ Buy in bulk where practical, choose refillable containers and avoid buying single-use or overpackaged items.

Toxic and superfluous?

The households we surveyed used fertilisers on their lawns or gardens. These contain nutrients which can drain into the ground water and be washed into waterways, where they may promote toxic blue-green algal blooms under certain conditions.

■ Minimise your use of household and garden chemicals, especially pesticides and herbicides. Compost is a good alternative to fertilisers. It's a cheap and effective plant food, helps retain moisture in the soil and reduces garbage. (For details see *Composting and compost bins* in the December 1994 issue of CHOICE.) Consider companion planting to help reduce pests naturally.

■ Potentially polluting or dangerous substances (such as unused medicines, paint, turps, oil, pesticides and other chemicals) should not end up in your garbage. Check with your local council or relevant environment protection authority how to dispose of them.

■ Think about how you use cleaning products. One or two can probably replace the five or six you currently use. And try to cut down on quantities used overall. This is an area the households we surveyed could focus on.

Reduce, reuse, recycle

THE BEST WAY TO REDUCE WASTE IS to consume less — and to make the best use of a product during its lifetime. Recycling is an important waste reduction measure which also contributes to the reduction in overall energy consumption, as the production of recycled goods is generally more energy-efficient than making them from scratch. This is particularly relevant for energy-intensive production processes such as in the aluminium and glass industries.

All the households we visited were avid recyclers — some even went to great lengths to seek out recycling companies in areas without kerbside collections — and most were quite ingenious at finding additional uses (or users) for packaging and items they no longer needed.

■ Recycling glass and aluminium containers and paper is a must. Check with your local council, recycling company or relevant environment protection authority to find takers for other recyclables such as newspapers, office paper, magazines and junk mail, cardboard packaging, plastic containers, steel cans, milk and juice cartons, plastic bags, wine and champagne corks and clothes.

■ Buy car batteries and tyres from dealers who accept your old ones for recycling.

■ Take a basket or reusable bag when you're out shopping; if you take plastic bags, reuse them.

■ A 'no junk mail, please' sign on your mailbox should help reduce the amount of paper you have to dispose of.

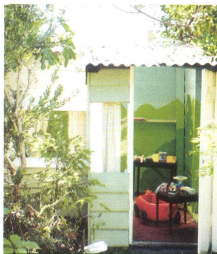


Passive solar design works

NINE YEARS AGO, JILL AND BRUCE WATSON bought a two-bedroom house in suburban Melbourne. It has since virtually doubled in size with the addition of a large family room, bedroom, laundry and a spacious deck for their three young boys to play on.

"Choosing the timber for the deck was a dilemma," says Jill, explaining their choice for "rainforest destruction" by using Malaysian timber. Treated pine had been their other option, but they were unwilling to use it in case it was toxic for their children. In fact treated pine is safe to use, though the fumes are toxic if it is burned.

Before building, Bruce and Jill sought advice on passive solar design and incorporated these principles into their plans — the extension faces north and allows the winter sun to warm the large living area. To keep the warmth into the evening, the walls and roof are insulated



Using timber left over from their extension work, the Watsons built a spacious cubby house for their children. It's L-shaped to accommodate an existing tree in their garden.

with fibreglass batts. A pergola provides shade from the summer sun.

Asked about the greatest impact she thinks her family's lifestyle has on the environment, Jill says: "Obviously, having children is the biggest one. Other than that, being consumers of so much that is wasteful and producers of so little, except for more waste!" The Watsons are trying to limit their waste and have found uses for most leftover building materials. A pile of bricks is still in the backyard — a resource for future projects.

Cleaning and the environment

JANE AND ROD HALL HAVE LIVED IN A semi-rural Hobart suburb for 23 years. Their two grown-up children have left home. Jane works as a midwife on irregular shifts, so her daughter drops in regularly to help her mother clean the house. It's spotless, but the variety of cleaning products used to keep it that way doesn't sit comfortably with the family's environmental consciousness. When we asked Jane which aspect of her family's lifestyle she thought had the greatest impact on the environment, she mentioned cleaning first, then rubbish generation and car usage.



The Halls could save both energy and money spent on heating if they insulated the roof of their Hobart home.

Like many of the other householders we spoke to, Jane feels she doesn't know enough to further improve her household's environmental performance. When the Halls last bought a new washing machine, they opted for a large twin tub, which they thought was better for the environment than an automatic machine. But that's not necessarily so. Front loaders tend to be more water-efficient than twin tubs or top loaders. And for warm and hot washes, they're also more energy-efficient.

But Jane's washing routine couldn't be improved from an environmental point of view. She only washes clothes when she has a full load, uses a phosphorus-free detergent, reuses the sudsy water for successive loads and uses only cold water for both washing and rinsing. All these practices help conserve water, an aspect she believes needs tackling on a national level.

Big family, high consumption

THE ADELAIDE FOOTHILLS ARE HOME TO Lorna and Brian Harmer and their four sons aged 15 to 20. The family has lived there for 18 years, during which they've extended their home twice. It's a large one by any standard, with many modern conveniences: a solar-heated outdoor pool, sauna, spa, floodlit tennis court, two large refrigerators and a bar fridge, various heating and cooling devices and many electric household appliances. The six-person household uses four cars.

Lorna uses the local recycling service for glass and aluminium and reuses some packaging and other waste materials to reduce the amount of garbage. But she believes wastage of water and energy use contribute most to her family's impact on the environment. With the largest household and home in our survey, it's not surprising the Harmers' total water and energy consumption was the highest.

To save energy and water, the family



To improve their environmental performance, the Harmers could look at ways to reduce their car usage.

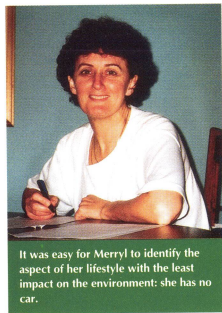
could reduce the time the pool filter is used, and install a cover. In the laundry, using more cold water and drying clothes on the line would reduce the energy used for water heating and the clothes dryer. Inside, using fewer heaters and lowering the temperature maintained throughout the house by 1°C could cut heating costs and greenhouse gas emissions by as much as 10%.

And installing heavy, floor-length curtains would also help retain warmth in winter and reduce the energy used for heating — this would also help the other households in cooler climates.

Life without a car

WHEN WE ASKED MERRYL ALEXANDER which aspect of her lifestyle she thought had the worst impact on the environment she was unsure whether water usage, energy consumption or use of public transport was most detrimental.

As it turned out, we can suggest very few ways for Merryl to improve her environmental performance. Her (one-person) household in suburban Perth had the lowest overall energy consumption among those surveyed; only the Childs in tropical Darwin, who used neither heaters nor air conditioners, consumed less energy per person.



It was easy for Merryl to identify the aspect of her lifestyle with the least impact on the environment: she has no car.

Merryl cooks and heats her house and water with natural gas. In the rooms most often used, she has compact fluorescent light bulbs which use much less electricity than incandescent (ordinary) bulbs. Her energy bills are only slightly higher in winter than in summer. In the colder months, heating only one room at a time is adequate — a 'snake' at the front door keeps draughts out. Her house design — the only semi-detached one in our survey; all the others were freestanding — further contributes to heat retention.

Merryl was also the wisest energy consumer overall, as she had no fuel costs for a car. With a bus stop close by, she can easily commute the 7 km trip to work by bus. She usually walks in her leisure time and rides a bike to the supermarket about 2 km from her home, or takes a taxi when she has a lot of shopping.

Air conditioning? No thanks

TEMPERATURES CAN GET PRETTY HOT IN the Northern Territory, but the Childs are used to the heat. Before Leigh and John and their three young boys moved north two years ago, the family had lived in Daisy Springs. In Darwin, however, the heat and humidity can become oppressive during the wet season. Yet despite the tropical climate, the family has no air conditioning. It's a deliberate choice. "Because it's hot and humid for such a long time, it would be even harder to go outside, if we had one installed in the family room," says Leigh. "And you probably wouldn't want to leave the room."

Their elevated home was built for a tropical environment — the windows are strategically located to take advantage of any breeze.

When they recently converted half the ground floor area below the house into a rumpus room, toilet, bathroom



To cope with the climate, the Childs have installed large ceiling fans in all rooms (including the verandah) and are planning to add a wind-powered roof ventilator to draw out the hot air.

and a workshop (it can also be used as a cyclone shelter), the Childs incorporated passive solar design principles. The eaves were extended to provide more shade; louvre windows allow for maximum air flow; white paint reflects the sun's heat off the concrete bricks used for most of the extension; and glass blocks in some wall panels allow more light in.

Mud bricks in the bush

GEORGINA STERIOVICH AND JACK PARKER live just north of Cairns. Concerned about the gradual destruction of the wet tropics and forests, Georgina believes far too little is done to incorporate the environment in building design. Their home is proof that more can be done. The couple lives with their two young boys and a boarder in a large mud brick house nestled in the escarpment and surrounded by bushland. According to Georgina, people either love it or don't like it at all; her family loves it.

Jack and Georgina's home was the only one in our survey which used solar



Three metre wide eaves provide shade for the interior and shelter the verandah from tropical downpours.

energy to heat water. A wind-powered roof ventilator, portable fans and open windows are used to cool the house. The roof is painted with a white reflective paint, but it isn't insulated. Bulk insulation between the metal roof and the plywood inside could lower the temperature indoors.

Considering the high rainfall in the Queensland tropics, Jack and Georgina could make better use of the rainwater. It currently runs off the eaves onto strategically planted garden beds alongside the house. The installation of guttering and a rainwater tank could catch more water, which could be used to water the vegetable and flower beds during the dry season. The household's waste water from the shower and washing machine is diverted to the surrounding bush on their property.

How green is your home? Test yourself

Our daily activities create many and varied impacts on the environment. This questionnaire can give you an idea about the ways in which your household's activities affect it. Where possible, we have tried to assign priorities in scoring the questionnaire, based on the overall environmental impacts of different activities. We have also tried to draw attention to activities which have less well-known effects on the environment — for example, urban sprawl contributes to the spread of our cities, requiring infrastructure and extended transport systems; dry cleaning involves the use of polluting chemicals and also contributes to indoor air pollution when the dry-cleaned clothes are brought home.

The more people who live in a household — or on the planet, for that matter — the higher the impact on the environment. We have therefore designed the questionnaire for your household rather than based on per person consumption. Several people living together probably create a lower impact than if they each lived by themselves.

We are thinking of introducing a regular piece in the Green Page which profiles one household's gradual 'greening'. If you'd like to volunteer to be this household, photocopy the filled-in questionnaire and mail it with your name, address and phone number to Green Page, CHOICE, 57 Carrington Road, Marrickville 2204.

Transport

What is the cost of your household's normal total weekly petrol consumption? Enter your score

Over \$50 per week	0 points	_____
\$30–\$50 per week	4 points	_____
\$15–\$29 per week	8 points	_____
Less than \$15 per week (or don't own car)	12 points	_____

Urban density

How far is your home from the shops you use most often?

More than 10 kilometres	0 points	_____
Between 5 and 10 kilometres	1 point	_____
Between 2 and 5 kilometres	2 points	_____
Less than 2 kilometres	3 points	_____

What is the area of land occupied by your home and garden (excluding agriculturally productive areas)? For multiple occupancy, divide the total by the number of flats/units.

More than 1000 square metres (¼ acre)	0 points	_____
Between 500 and 1000 square metres	1 point	_____
Between 250 and 500 square metres	2 points	_____
Less than 250 square metres	4 points	_____

1. Total transport and urban density _____

Household energy use

What is your yearly energy bill?

Gas: Total of your bills for the past 12 months \$ _____

Electric: Total of your bills for the past 12 months \$ _____

Total gas and electric bills: \$ _____

More than \$1680 per year	0 points	_____
Between \$1201 and \$1680 per year	2 points	_____
Between \$721 and \$1200 per year	4 points	_____
Between \$481 and \$720 per year	6 points	_____
\$480 or less per year	8 points	_____

Do you usually wash clothes in cold water?

No	0 points	_____
Yes	2 points	_____

Do you have a water-efficient shower head?

No	0 points	_____
Yes	3 points	_____

How many times per week do people in your household take full baths, spa baths, or long showers (over 10 minutes)?

More than 5	0 points	_____
Between 2 and 5	1 point	_____
Less than 2	2 points	_____

Do you use a separate freezer or a second refrigerator?

Yes	0 points	_____
No	2 points	_____

Is your house insulated?

No	0 points	_____
Ceilings insulated	2 points	_____
Walls insulated	1 point	_____

2. Total household energy use _____

Food and clothing

What proportion of meals eaten by members of your household (either at home or outside) contain meat?

Most or all _____ 0 points _____
About half _____ 1 point _____
Less than a quarter _____ 2 points _____

Do you compost food and garden wastes?

No _____ 0 points _____
Some waste composted _____ 1 point _____
All waste composted _____ 3 points _____

How many garments does your household take to the dry cleaner each week?

More than 2 _____ 0 points _____
One to two _____ 1 point _____
None _____ 2 points _____

Does your household pass on clothing and/or other household goods to friends, family or charities?

Hardly ever _____ 0 points _____
Sometimes _____ 1 point _____
Often _____ 2 points _____

3. Total food and clothing _____

Recycling, wastes and chemicals

Do you recycle the following materials?

Glass, plastic or metal _____ 1 point each _____
Paper _____ 3 points _____
Building materials (or use none) _____ 2 points _____

Inside your home, do you use chemical cleaners, insect repellents or other chemicals?

Often _____ 0 points _____
Rarely _____ 1 point _____
Never _____ 2 points _____

Outside your home, do you use fertilisers, snail bait, weed killers, other pesticides or pool chemicals?

Often _____ 0 points _____
Rarely _____ 1 point _____
Never _____ 2 points _____

Do members of your household buy products with the following features?

Made from unbleached paper _____ 1 point _____
Made from recyclable materials _____ 1 point _____
Made from recycled materials _____ 3 points _____
With minimal packaging _____ 3 points _____
In the largest-sized package that's practical _____ 3 points _____

4. Total recycling, wastes and chemicals _____

Water use

From your water bill, what is your yearly water consumption?

More than 360 kilolitres _____ 0 points _____
229-360 kilolitres _____ 2 points _____
120-228 kilolitres _____ 4 points _____
Less than 120 kilolitres _____ 6 points _____
Information unavailable _____ 3 points _____

Do you have a dual-flush toilet?

No _____ 0 points _____
Yes _____ 1 point _____

Does your household use a washing machine?

Yes, a top-loading or twin tub machine _____ 0 points _____
Yes, a front-loading machine _____ 1 point _____
No _____ 1 point _____

How frequently do you water your garden or plants?

Automatic system every day _____ 0 points _____
Automatic system every second day _____ 1 point _____
Automatic system every third day _____ 2 points _____
Less often (or use drip, hand watering or moisture-sensing equipment, or have no garden) _____ 3 points _____

When you choose garden plants, do you look for types that require little watering?

No _____ 0 points _____
Yes _____ 2 points _____

5. Total water use _____

To find out how you fared, write down your scores for the five sections and add them up. The higher your total score is, the lower is your impact on the environment.

1. Transport and urban density

2. Household energy use

3. Food and clothing

4. Recycling, wastes, and chemicals

5. Water use

TOTAL

75 plus **Very green lifestyle**

55 to 75 **Pretty good**

35 to 54 **Typical lifestyle**

15 to 34 **Fairly high environmental impact**

0 to 14 **Significant environmental impact**



Turn it down or you'll go deaf!

Recent research has shown that many young Australians may have destroyed much of their hearing capacity by the time they're out of their teens.

IF THE APPARENT TREND TO PREMATURE hearing loss is not halted, a third of the Australian population (51% of all males and 15% of all females) will have at least a mild hearing loss in 10 years from now. By the year 2014, the number will have increased to more than 10 million people — about half the projected population (78% of all males and 25% of all females). Those numbers will be reached because today's teenagers

(who will be middle-aged by then) may be incurring ear damage at rates previously only associated with industrial deafness.

These predictions are based on studies by senior research scientist Dr Eric LePage and his research team at the National Acoustic Laboratories, the research division of the Australian Hearing Services. The team used a new technique — otoacoustic emission test-

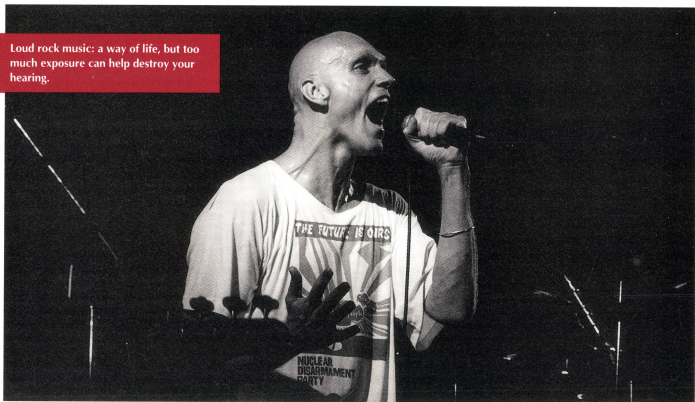
ing — to measure the inner ear performance of almost 1100 Australians of all ages, and then correlated the results and emerging trends with Australian Bureau of Statistics projections for population growth to arrive at this startling forecast.

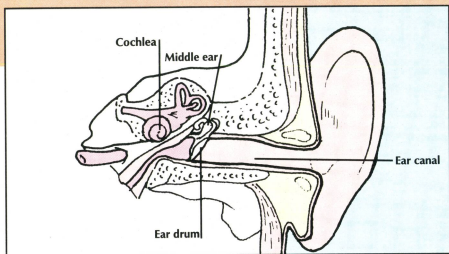
Otoacoustic emission testing is not like a conventional hearing test, which relies on patients' subjective assessments of their hearing ability. When a sound comes into the ear, it triggers a tiny motor or muscular response. With a small microphone placed in the ear canal, these otoacoustic emissions can be picked up. This new technique can measure people's inner ear performance objectively and it's claimed any damage can be detected at an early stage, long before people notice any signs of hearing impairment.

How the ear works

Sound waves enter the outer ear, travel down the ear canal and cause the eardrum at the entrance to the middle ear to vibrate. The three tiny bones within the middle ear transmit these vibrations

Loud rock music: a way of life, but too much exposure can help destroy your hearing.





to the inner ear or cochlea. Inside the fluid-filled cochlea there are thousands of tiny hair cells which detect the vibrations and send signals to the brain along the auditory nerve. The end result is that you hear a sound.

Loud noise damages these hair cells, leading to some hearing loss with age, but excessive noise damages them prematurely. Excessive can mean either a brief exposure to extremely loud noise or long exposure to a moderately loud noise. The hair cells eventually provide no response to sound. The damage is irreparable.

The most common signs of hearing impairment are:

- Increased noise levels inside the ear (tinnitus, or ringing in the ears).
- Loss of ability to distinguish sounds and the directions they're coming from.
- Loss of volume (you don't hear sounds as loudly and clearly any more).

Noise-induced hearing loss

One trigger for hearing loss is acoustic trauma, such as that caused by a shotgun blast, explosion or a detonation of firecrackers close to the head. However, it's more common for people to suffer hear-

ing loss in later life because they've accumulated gradual ear damage over the years. Losing 2-3 dB of hair cell response per decade is considered normal. Most people in industrialised societies can't avoid some exposure to potentially harmful noise levels throughout their lives.

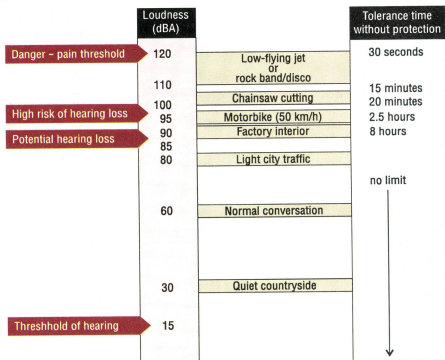
It's estimated that almost one in five Australians suffers from hearing loss today — about three times more men than women. (Exact figures are not available as there's been a dearth of research on the topic.)

According to Maureen McGrotty, the Director of Services and Training at Better Hearing Australia, excessive noise accounts for about half the hearing loss in the population. "Young people are exposing themselves more and more to loud noise, especially music, and on a fairly regular basis," she says. The problem is that the damage done isn't immediately noticeable, often not until 10 or 15 years later when the first signs of hearing loss appear. At that stage, however, the ears have already suffered considerable and irreparable damage.

HOW LOUD IS LOUD?

The extent to which noise affects hearing ability depends not only on the noise level but also on the degree of damage each individual's ears have already suffered due to exposure to noise — which explains the high incidence of occupational hearing loss. In general, noise-induced hearing loss occurs over time, but sudden (impact) noise tends to be more damaging than continuous noise.

The chart shows some examples of noise levels from common sounds. The intensity and pressure of sound on the ear is measured in decibels (dB). The noises are expressed in dBA, which takes into account how the human ear filters sounds.



"Everyone knows that it's madness to stare at the sun, but so few treat loud sound with the same awe. Unfortunately, the damage is just as permanent and at least as debilitating," says Dr Robert Patuzzi of the University of Western Australia's Physiology Department. He believes the high incidence of noise damage is "directly attributable to the sufferer's complete and utter ignorance about their own ears".

Other factors

Various international studies confirm that exposure to very loud music, such as with headphones or at rock concerts, increases the risk of hearing loss in future years. Many teenagers not only listen regularly to very loud music but pursue other high-noise leisure activities as well, such as trail bike riding or car racing, and spend less time with low-noise hobbies such as fishing, says Dr LePage.

But excessive noise can't be singled out as the only contributor to ear damage in young people. "Data show that something has happened over the last 20 years, due to a variety of causes," he says. For example, it's been established that toxins such as toluene (a solvent used in the production of benzene) cause ear damage, especially in people who are occupationally exposed to noise at the same time. Some antibiotic drugs such as aminoglycosides (eg Streptomycin, Gentamycin) and cytotoxic drugs (eg Cisplatinum) may also contribute to hearing loss, at a much faster rate than noise.

Getting the message across

For people working in noisy industries, occupational health and safety guidelines stipulate a maximum noise exposure of about 85-90 dB (it varies between states) without protection for a maximum of eight hours a day. Previous research has shown that the average ear can endure 90 dB for about eight hours without damage, although some people may be more susceptible and could incur damage from noise levels above 70 dB. Then, for every 3 dB above 90 dB, the time limit should be halved.

Industries affected have to reduce or insulate the noise, shorten the time of



Industrial deafness can be caused by ignorance; even if employers provide ear protection, not all employees understand why they need to wear it.

exposure or provide adequate ear protectors for employees. However, it's not easy to monitor compliance. Even if employers provide appropriate protection, employees may be reluctant to wear it for various reasons and need to be made aware of the potential problems.

On the home front and in schools, researchers at the National Acoustic Laboratories suggest the best way to explain the dangers of excessive noise to young people is with a simple analogy: think of inner ear performance as a standard bank deposit made at birth, but you have a 'withdrawal only' bank account and when it's nearly empty, it'll become more difficult to hear, especially when the background noise level is high.

Prevention the only cure

While the initial cost for the otoacoustic emission testing technology is high, the tests themselves are fast and cheap. If the technology were adopted across the board — the ultimate aim — and young people screened regularly (at school, for example), those who are most at risk could be identified at an early age.

"The ear can take a lot of abuse before there are signs of hearing loss," says Dr LePage, but then it's too late to fix the damage. Only hearing aids or cochlear implants help sufferers regain some of their hearing ability. That's why preventing damage is so important; there's no cure. The best way to guard against hearing loss is to avoid loud noise as much as possible.

When you can't avoid the noise

■ Wear appropriate ear protectors. Depending on design, ear muffs generally reduce noise levels by 16-35 dB and filter the more harmful higher frequencies more than the lower frequencies, so you still pick up voices around you.

■ Earplugs weaken noise levels by about 7-22 dB. They have to be properly inserted and maintained. Special custom-moulded plugs (musicians' earplugs) are available for people who are exposed to 90-120 dB sound levels and still need to hear accurately. Bits of cotton-wool stuffed in your ears won't provide sufficient protection.

Appropriate protection is particularly important for people who are exposed to loud noise at work and pursue noisy leisure activities such as motorbike riding, car racing, target shooting, playing in a rock band or attending rock concerts regularly. The cumulative noise exposure significantly increases their risk of hearing loss.

■ If you're listening to music, the volume is too loud when you can't hear other sounds. And with headphones on, when people around you can hear it too.

■ If your ears are ringing — for instance after a rock concert — for more than 12-16 hours, have them checked or talk to a doctor or audiologist. They usually recover within that time, but some damage may still have been done.

If you need advice on hearing loss or preventative measures, read *Hearing aids — promised you a miracle?*, CHOICE, April 1994. □

Any old irons?

Do you have a CHOICE-recommended appliance more than 15 years old that is still going strong?

As part of CHOICE's 35th birthday celebrations, we are holding a competition to find the subscriber with the oldest working CHOICE-recommended appliance. To enter, your appliance must be:

- Still in working order.
- A model recommended by CHOICE.
- At least 15 years old.

Simply send in a photo of yourself and the appliance, if possible telling us which issue it was recommended in. (If you can't remember or haven't kept back issues, give our Consumer Information Service a call on (02) 559 9855 and they'll help you find it.)

The subscriber with the oldest appliance will win a CHOICE pack valued at over \$150, including:

- A one-year subscription to CHOICE.
- A one-year subscription to Consuming Interest.
- A one-year subscription to CHOICE Travel.
- Three recent CHOICE Books.

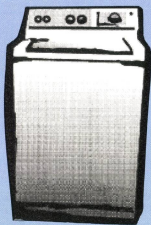
All entries will also go into a draw to win a CHOICE tested and recommended appliance from one of our recent tests.

In October CHOICE we'll publish the name and photo of the subscriber with the oldest appliance, and the winner of the draw.

Send your entries to Oldest appliance, CHOICE, 57 Carrington Road, Marrickville NSW 2204, to reach us by July 31, 1995.



SUBSCRIBER 16th DRAW



For new subscriptions and renewals received April 1 to June 30, 1995

Our Sixteenth Draw, to be held on July 3, 1995, will have a new format. There will be two lucky winners who will choose their prizes from tests published in CHOICE, September to November 1994.

1st Prize: Washing machine (September and November 1994) valued at up to \$1000.

2nd Prize: Lawn trimmer (October 1994) and food processor (November 1994) valued at up to \$300.

These are products we bought for testing, so you won't be the first to turn them on or set them up. But we'll cover any service problems with a CHOICE warranty that'll match the manufacturers' — just as if you'd bought them new.

All new CHOICE subscriptions and renewals received from members and personal subscribers (including donors of gift subscriptions) by June 30 will go into the draw, unless of course you indicate you don't want to be included.

Subscriber draws are held every quarter — your renewal notice will have the details. If you're on a two-year subscription you'll be entered on your first anniversary as well as when you renew again.

Use the order form overleaf

CONDITIONS OF ENTRY

1. The winner will be drawn from new subscriptions and renewals from personal subscribers (including members and donors of gift subscriptions) received April 1 to June 30, 1995. If you opt for a two-year subscription, you'll be entered on your first anniversary as well as when you actually renew or subscribe.
2. Information on how to enter and prizes forms part of these conditions of entry.
3. Employees, and their immediate families, of the Australian Consumers' Association and its associated companies and agencies are ineligible to enter.
4. Entrants must be residents of Australia.
5. Applications are subject to a verification check and the judge's decision is final. No correspondence will be entered into.
6. The prizes will be delivered free anywhere within Australia.
7. Prizes cannot be taken as cash.
8. South Australian residents may enter the draw by completing the form and posting to: Reply Paid No. 24, ACA, 57 Carrington Road, Marrickville NSW 2204, without subscribing to the magazine. Only one entry per person is permissible through this method.
9. Last date for receipt of entries to the draw is June 30, 1995. No responsibility accepted for lost, late or misdirected mail.
10. The draw will be conducted at the office of the Consumers' Association at 10 am on July 3, 1995.
11. The winner will be notified by letter and published in the earliest feasible issue of CHOICE after that.
12. The promoter is Australian Consumers' Association, 57 Carrington Road, Marrickville NSW 2204. NSW permit No. TC95/741 issued on 27/2/95, ACT Permit No. TP95/0303 issued under the Lotteries Ordinance on 27/2/95, NT No. NT95/0299 issued on 27/2/95.

Order Form

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Marrickville NSW 2204

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Consuming Interest	1 year	27	Personal	☐	☐	
	2 years	50		☐	☐	
	1 year	35	Institution	☐	☐	
	2 years	67		☐	☐	
Travel	1 year	27	Personal	☐	☐	
	2 years	50		☐	☐	
	1 year	35	Institution	☐	☐	
	2 years	67		☐	☐	
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			Blue	☐	☐	
				☐	☐	
Folders	\$12 each		Red	☐	☐	
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12 issues per year — monthly



4 issues per year — May, August, November, February



4 issues per year — March, May, August, November



Box holders hold 24 issues



Folders hold 12 issues

Dishwashers

Do high energy and water efficiency sometimes translate into poorer washing performance and a nightmare plate-stacking exercise? We think so, and wonder if users think it's a fair trade-off.

DISHWASHERS ARE OFTEN ONE of the last items people think of when redoing or creating a new kitchen, and they're a product first-time buyers know little about. But their growing popularity has spurred a rise in the number and variety available on the market. Manufacturers are also responding to the environmental concerns of consumers: the machines we tested this time used a lot less water than some in our previous tests a few years ago.

The less detergent, energy and water dishwashers use during each wash run, the better it is for the environment. Over the years, we've found they're taking slightly less ecological toll. Dishwashers we tested for the February 1993 issue used between 21 and 40 L of water during the normal wash, but the range for this test has dropped to 18 to 34 L. A reduction in water consumption also helps reduce energy consumption, since the biggest share of energy used during a wash cycle goes towards heating water.

We looked at ease of use, including how difficult it was to stack 12 place settings into the machines — even those which are marketed as taking 14. When looked at per place setting, a 14-place machine can get better ratings for water and energy efficiency. With some of the 14-place machines, this seems to translate simply to less space per item — we seriously doubt if in real-life use anyone would attempt to cram 14 settings into them; we had trouble enough stacking 12 without plates and dishes 'nesting,' and we're used to packing dishwashers!

The close stacking of plates and dishes also seems to cause washing problems in some cases. Of the six machines that have spaces for 14 settings, three were clearly the worst performers for washing and two others a little below average compared with the others in the test. When we tested them with just half a load, allowing more space between items, washing performance improved

significantly — but at the expense, of course, of using a lot more water and energy over time. However, 14 place settings don't automatically cause this problem: the 14-place ASKO was our top-scorer for washing.

DIFFICULT LOADS

To find out how easy it was to load non-standard items we used a mixture

of large plates, bowls and cups, tall wineglasses and chopsticks. Most machines couldn't handle all of them at once. Even those with a height-adjustable top basket — the AEG Oko Favorit 676, BLANCO BDW 203, SMEG L5 Eco, SIMPSON 860, WESTINGHOUSE 908 and VULCAN DISHLEX Manhattan — couldn't cope with large plates *and* tall wineglasses, for example. The top basket of the VULCAN also had no barrier at the rear of the cup rack, making it easy to push cups too far back so they fell into the lower basket.

Some of the models — the FISHER & PAYKEL Soft Touch and Select, SIMPSON 860 and WESTINGHOUSE 904 and 908 — overcame some stacking problems by having removable rack spacers in the lower basket that made space for larger

The top-rating Miele G 572 was the only dishwasher we tested that could cope with all our difficult loads, such as tall wineglasses and large plates, at the same time. However, at \$1700, it's twice the price of our Best Buy, the Fisher & Paykel Select.



items. The MIELE G 572 (which didn't have an adjustable top or bottom shelf) was the only one that didn't have any problem loading our non-standard test items.

SAFETY AND OTHER FEATURES

■ The ASKO 1253 and the VULCAN DISHLEX Manhattan and Milano have child safety locks on their doors, but on the Manhattan it had been installed incorrectly; the company fixed the problem for us.

■ The VULCANs were also the only ones that had a safety lock on the detergent compartment to help prevent children being poisoned.

■ In line with the trend for streamlined modular-cupboard kitchen designs, all our test models can be installed under a

kitchen bench. Most models can also be freestanding, although not all have a worktop in this design. Some also come in mobile versions for people with small or awkwardly arranged kitchens — see the table for details.

■ Vents are an important consideration since condensation can settle on any item close to the dishwasher. Only two models, the ASKO 1253 and MIELE G 572, had obvious ventilation louvers in the door — a good feature.

■ The two FISHER & PAYKELS, the WESTINGHOUSE 908 and the VULCAN DISHLEX Manhattan and Milano have electronic controls. Some people may find these confusing (at least initially), while others prefer their looks to mechanical dials and pushbuttons.

WHAT TO BUY

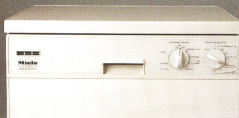
MIELE G 572	\$1700
AEG Öko Favorit 676	\$1400
BLANCO BDW 203	\$1100
BOSCH SMS 4012	\$1075
FISHER & PAYKEL Select	\$850
ASKO 1253	\$1075

Although the top six machines essentially came out close to equal on overall scores for their normal cycles (varying only between 78% to 84%), they did it in different ways. The ASKO 1253 gave the best wash, but at the cost of high energy use, while the AEG Öko Favorit 676 had very good water and energy efficiency scores (and hence low running costs), but was only average for washing performance.

However, our Best Buy has to be the FISHER & PAYKEL Select: it washed well, had a high ease of use score and a perfect drying score. To cap this off, it has moderate running costs and is one of the cheapest machines to buy in the first place. A definite winner!

The pick of the bunch

Models profiled are from the group of six best performers. Prices shown are a good target to aim for when shopping around, based on nationwide checks in January 1995. Anything lower is a bargain.



MIELE G 572

Price: \$1700

Type: Freestanding with worktop, or built-in (with or without decor panels). Mechanical controls.

Good points

- One of the best for washing performance and a very good drying score.
- One of the best for energy efficiency and a good water efficiency score.
- Best ease of use score, and best for disabled users.
- The most versatile for loading.
- One of the least expensive to run.
- Anti-flood device.
- Controls are easy to set.
- Has a water level selector.

Bad points

- Very high purchase price.
- Doesn't have a fast wash cycle.
- Filter contains a fine mesh that makes cleaning fiddly.



AEG ÖKO FAVORIT 676

Price: \$1400

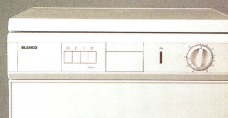
Type: Freestanding with a worktop, or built-in (with or without decor panels). Mechanical controls.

Good points

- Good washing and excellent drying performance.
- Good energy and water efficiency.
- The cheapest for running costs.
- Controls are easy to set.
- Three-year warranty.
- Anti-flood device.
- Has fast wash cycle.
- Adjustable top basket.

Bad points

- High purchase price.



BLANCO BDW 203

Price: \$1100

Type: Freestanding with worktop, or built-in (with or without decor panels). Mechanical controls.

Good points

- Good washing and excellent drying performance.
- Good water and energy efficiency.
- Reversible spray arms for heavily soiled items.
- Low running costs.
- Very versatile for loading.
- Anti-flood device.
- Controls easy to set.
- Has a fast wash cycle.
- Adjustable top basket.

Bad points

- Spray arm has to be removed to get at filter.
- One-year warranty only.

What to look for

How reliable are they?

We asked a panel of subscribers and non-subscribers to report whether their dishwasher had needed repairs in the last 12 months. The graphs below indicate how well the most popular dishwasher brands performed. On average, about 24% of the dishwashers needed repair in that time, and the average cost of repairs was just over \$80. Although Vulcan and Simpson were the two most popular brands, Miele models were much less likely to need repairs.

We also asked our panellists if they'd buy the same brand of dishwasher again.

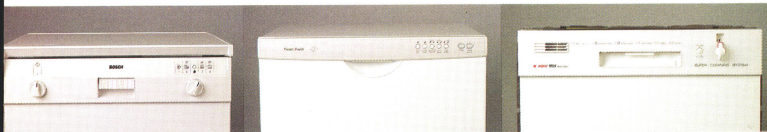
Brand	% not needing repair	Brand	% who would buy again
Miele	92	Miele	98
Kleenmaid	85	Asko Asea	95
Bosch	84	Bosch	94
Philips	84	Kleenmaid	94
Westinghouse	78	Vulcan Dishlex	72
Asko Asea	76	Westinghouse	68
General Electric	75	General Electric	66
Simpson	73	Simpson	65
Vulcan Dishlex	72	Hoover	61
Hoover	70	Philips	53

■ **Basics first:** Will the model you want fit in your space with room around the sides and back for steam to escape? Do you need a built-in, freestanding or mobile model? If it's built-in, do you want one that you can buy decor panels for to match your kitchen? If it's freestanding, do you want a worktop? If you're going to wheel a mobile up to your sink and hook up the pipes to the taps as needed, have you got a mixing tap? You'll have to have one installed if not. Does the mixing tap have the right attachment for the hoses? If not you'll have to buy that too.

■ **Energy and water efficiency:** Look for an energy rating label with as many stars as possible (six is the maximum). On the new water efficiency rating label, the more As (up to three) the better.

■ **Ease of use:** Do the plate spacers look so close together it would be hard to stack two bowls next to each other without them 'nesting'? Can you fit in taller items? (Take along your tallest glass or largest plate to check.) Is the filter easy to get at?

■ **Washing performance:** You can't check this in the shop, but the dishwasher market isn't too volatile, so you should be able to use these test results for some time.



BOSCH SMS 4012

Price: \$1075

Type: Freestanding with worktop, or built-in (with or without decor panels). Mechanical controls.

Good points

- Good washing and excellent drying performance.
- Good energy and water efficiency.
- Low running costs.
- Versatile for loading.
- Controls are easy to set.
- Anti-flood device.

FISHER & PAYKEL SELECT

Price: \$850

Type: Can be built-in (but you can't add decor panels) or freestanding but feet must be anchored to the floor. Electronic controls.

Good points

- One of the best washing scores and excellent drying performance.
- Good self-cleaning filter and strainer.
- Anti-flood device.
- Has fast wash cycle.
- Removable racks in lower basket.
- Audible signal at end of wash.
- One-year warranty can be extended to two if you return the 'Smart Care' card.

Bad points

- Comparatively poor water efficiency.
- Only fair loading versatility.

BEST
BUY

ASKO 1253

Price: \$1075

Type: Built-in (with or without decor panels), freestanding (feet must be anchored to the floor) or mobile. Mechanical controls.

Good points

- Best washing and very good drying performance.
- Good water efficiency.
- Controls are easy to set.
- Anti-flood device.
- Has a safety lock on the door.
- Self-cleaning filter.
- Two-year warranty.

Bad points

- Among the worst for energy efficiency.
- Only fair loading versatility.
- High running costs.

Dishwashers

1

2

3

	Brand/model (in rank order)	Manufacturer/ distributor	Origin	Target price (\$)*	Warranty (years)	Type	Dimensions (mm - H x W x D)	Place settings	Water connection	Delayed wash start	Notes (d)
	MIELE G 572	Miele	Germany	1700	2	i / bi / fs, w	850 x 595 x 620	12	H or C		
	AEG Öko Favorit 676	Andi-co	Germany	1400	3	i / bi / fs, w	848 x 597 x 615	12	H or C		
equal	BLANCO BDW 203	MEA	Italy	1100	1	i / bi / fs, w	849 x 600 x 620	12	H or C		
	BOSCH SMS 4012	Bosch	Germany	1075	2	i / bi / fs, w	849 x 598 x 620	12	H or C		
	FISHER & PAYKEL Select	Fisher & Paykel	NZ	850	1 (B)	bi / fs	850 x 590 x 558	12	H or C		
	ASKO 1253	Asko Appliances	Sweden	1075	2 (C)	i / bi / fs / m (F)	820 x 595 x 610	14	H or C		
	FISHER & PAYKEL Soft Touch	Fisher & Paykel	NZ	900	1 (B)	bi / fs	850 x 590 x 558	12	H and/or C	✓ (J)	
equal	SMEG L5 Eco	Omega	Italy	1000	2	i / bi / fs, w	853 x 600 x 615	12	H or C		
	WESTINGHOUSE 908	Email	Australia	1100	2 (D)	bi / fs	835 x 600 x 585	14	H and C	✓ (K)	
equal	SIMPSON 860	Email	Australia	850	1	bi / fs / m (G)	835 x 600 x 593	14	H or C		
	WESTINGHOUSE 904	Email	Australia	800	1	bi / fs / m (G)	835 x 600 x 593	14	H or C		
equal	VULCAN DISHLEX Manhattan	Southcorp	Australia	1275	2 (E)	i / bi / fs / m (H)	829 x 598 x 610	14	H and/or C	✓ (K)	
	VULCAN DISHLEX Milano (A)	Southcorp	Australia	1125	2 (E)	i / bi / fs / m (H)	829 x 598 x 610	14	H and/or C	✓ (K)	

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in January 1995.

(A) Technically similar to the Manhattan, but with fewer control options on the front panel.

(B) One additional year on return of Smart Care card.

(C) Additional eight years on stainless steel tub and inner door lining parts and labour, for faulty workmanship or

materials.

(D) 10 years on stainless steel liner (material only).

(E) 10 years on stainless steel panels (panels). Optional

post-service plan available at \$50 per year.

(F) Mobile conversion costs \$239; \$109 for conversion to a freestanding model.

(G) Mobile conversion kit costs \$56.

(H) Mobile conversion has to be done by a service person; around \$100.

(J) One, three and six hours.

(K) Two, four and six hours.

(L) No quick-wash program.

For people with disabilities

According to an occupational therapist from the Independent Living Centre who assessed the machines, the main features to look for in dishwashers for use by people with visual, movement or hand disabilities are:

- The door should be light and easy to open.
- Controls should have good visual displays and markings.
- Controls should not need to be pressed hard.
- Detergent dispensers and rinse-aid compartments should be easy to open and close.
- Loading and unloading a machine shouldn't present difficulties.
- Removing lower baskets to clean filters should be easy and filters should be accessible — that is, as close to the door as possible — to make them easier for people with back problems to reach.
- Large handles on filters are desirable for easy grip and filters should be easy to clean and not in too many pieces. The **FISHER & PAYKEL** models were good in this respect: they have self-cleaning filters that worked well, but the **WESTINGHOUSE** filter was very difficult.

WHAT WE FOUND

- Adjustable top baskets would all be difficult to use.
- Both **FISHER & PAYKEL**s are good for people with back problems and for wheelchair users, but their detergent dispensers need some strength to open, the rinse-aid compartment is stiff and the pushbuttons are fine for fingertip control but require more pressure if not using fingertips.
- Visually the **FISHER & PAYKEL Soft Touch** isn't particularly good — its print is small, the text (grey) doesn't show up well against the white background and the indicator lights are very small. The **FISHER & PAYKEL Select**, with fewer controls, is slightly better.
- The **MIELE G 572** is the best overall for people with disabilities, though some dials and the filter could be easier to use.

Saving resources

Dishwashers should clean very dirty items best on their heaviest cycles, but needlessly subjecting a lightly to moderately soiled load of dishes to extra washing and rinsing wastes water, time and energy. We recommend using the normal or economy wash for dishes that have already been rinsed or are only moderately dirty. If you have very dirty items, scrape off the dirt and rinse before putting them into the machine. Also wait until the dishwasher is full before washing.

Many machines now have one or more 'economy' cycles (which you'd expect to be more time, energy and water-efficient), so we tested them for performance. On average, most machines' washing scores varied little between the normal and economy wash cycles when using the same load, so they're worth trying.

Many machines on the market now also have a fast wash cycle. This is achieved by reducing the washing time, the number of rinses, the temperature, the drying time or doing away with the prewash and drying cycles. It's useful for very lightly soiled loads such as a lot of glasses after a party. Of the 13 models we tested, nine have a fast wash cycle and they all used less water and energy than the normal cycle. See the table for models that have a fast cycle and how they compare with the normal cycles for speed.

	5	6	7	8	9	10	11		
normal cycle/ fast wash (min)	Running costs (\$/10 years)	Water used (litres)	Washing score (%)	Drying score (%)	Water score (%)	Energy score (%)	Ease of use score (%)	Overall score (%)	Brand/model (in rank order)
1 / (L)	872	23.0	87	98	77	71	78	84	MIELE G 572
0 / 42	820	21.6	79	100	82	81	70	83	AEG Öko Favorit 676
1 / 46	892	22.0	77	100	80	66	70	80	BLANCO BDW 203
2 / (L)	904	21.8	79	99	81	64	65	80	BOSCH SMS 4012
1 / 48	967	31.8	88	100	50	56	75	79	FISHER & PAYKEL Select
5 / (L)	1041	22.7	89	95	73	36	70	78	ASKO 1253
0 / 29	1045	33.7	84	99	44	40	75	74	FISHER & PAYKEL Soft Touch
4 / (L)	884	24.4	76	78	73	69	60	73	SMEG L5 Eco
1 / 28	904	17.9	65	91	93	62	55	73	WESTINGHOUSE 908
2 / 30	937	19.5	69	82	88	56	60	72	SIMPSON 860
2 / 30	937	19.5	69	82	88	56	60	72	WESTINGHOUSE 904
6 / 46	1190	31.6	77	96	51	9	75	66	VULCAN DISHLEX Manhattan
6 / 46	1190	31.6	77	96	51	9	75	66	VULCAN DISHLEX Milano

We bought the cheapest models available in each imported brand, plus a range of Australian models available at the time of testing. While the designated place settings were 12 or 14, we tested them all with 12.

1 Type

bi — Built-in: may be installed under a kitchen bench, often between cupboards, but doesn't require special decor panels.

I — Integrated: models which allow you to

add decor panels to match your kitchen.

fs — Freestanding without worktop.

fs. w — Freestanding with worktop.

m — Mobile: has castors and hoses which attach to a mixing tap.

2 Water connection

Hot or cold: You can plumb the dishwasher into either the hot or the cold tap. Some manufacturers recommend connecting machines to the hot water tap, as this gives a shorter program time; can use water heated by off-peak electricity, gas or solar power; may give a better prewash because the hot water tends to loosen greasy residue more effectively; and may give more effective odour elimination with a hot rinse. However, using hot water wastes a lot of energy, and water whose temperature isn't regulated (such as solar-heated water) can damage a dishwasher and shorten its life. It can also bake on some types of soil, so we generally recommend cold water connection.

Hot and/or cold: You can connect to either or both taps.

3 Delayed wash start

5 This allows you to program the machine to start at a particular time — useful if you want to be out of the house or asleep while the machine is working.

4 Noise

4 Noise was measured one metre in front of the machines and one metre above the floor. None of our test machines could be considered noisy and if you build them into your cupboards the noise is even less.

Running costs

Running costs over 10 years are calculated on the basis of using one full load per day on a normal cycle with cold water intake, at 10 cents per kWh for electricity, 65 cents per 1000 litres for water and 25 grams of detergent for each wash at \$3.10 per kilogram.

6 Washing score

The machines were tested on their 'normal' cycle for their ability to remove dried-on fatty products (margarine), protein (egg yolk) and filter out small particles (chopped spinach) — types of food a dishwasher would have to deal with in normal use.

7 Drying score

Drying was assessed 30 minutes after the wash program had stopped to give the residual heat from washing and rinsing time to dry the plates off. There should only be a few spots and streaks of water remaining — the fewer of these, the higher the score.

Water consumption score

5 The range for water consumption was 18 to 34 L per normal cycle, but the machine that used the least water, the **WESTINGHOUSE 908**, was the worst for washing performance.

Energy consumption score

Dishwashers are heavy energy users. Our test models ranged from 1.332 kWh (for the **AEG Öko Favorit 676**) up to 2.810 kWh (for the **VULCAN DISHLEX Manhattan (Milano)**) for the normal wash cycle. For the fast wash cycle the **SIMPSON 860** used the least energy (0.71 kWh) and the **VULCANs** again used the most (1.71 kWh).

10 Ease of use score

16 How easy it is to clean the filter, operate the controls, and loading/unloading versatility were taken into account for the ease of use score.

11 Overall score

The overall score took into account washing, drying, energy and water consumption for the normal wash cycle as well as the ease of use score, weighted in the following proportions:

- Washing performance: 40%.
- Drying performance: 20%.
- Water consumption: 15%.
- Energy consumption: 15%.
- Ease of use: 10%.

Mid-sized televisions

For this report we compared TVs with a 51 cm screen, and found as many as 11 models worth buying.

A DIFFERENCE IN SCREEN SIZE OF three centimetres may not seem like much, but according to market experts 51 cm screens are threatening to take over from 48 cm sets as the standard for mid-sized televisions. Apart from a slightly larger screen size, the 51 cm models are distinctive in that they tend to be marketed as 'value-added' products — they claim to offer more and better features than their 48 cm cousins.

One of the main features touted for 51 cm models is that they're designed with a picture tube that's flatter across the front and has sides that are less curved than in older-style sets. The advantages of a flatter, squarer tube (or FST for short) are:

- Less distortion of the picture due to the curvature of the screen when you're not sitting directly in front of the set.
- Less chance of the screen having annoying reflections from lights or sunlight through a window.

For more on FST see *What does it all mean?* on page 44.

For this report we tested all 51 cm

televisions available for under \$900 with FST — 14 models in all.

WHAT TO LOOK FOR

When assessing the televisions we looked at three main areas: picture quality, sound quality and ease of use.

Our tests included a viewing panel and an assessment of test patterns to determine picture quality; listening to a variety of live broadcast and taped material to find out how the sets sounded; and a look at the remote controls, instructions and tuning to see how easy they were to use.

The tests were carried out under controlled laboratory conditions. When you're in a shop deciding what TV to buy you don't have a test lab at your disposal, but here are some simple tips you can use to choose the right set.

- Watch the set for a while in the shop and look at all the available channels so you see a variety of images. If the picture looks too bright, too dull, lacking in colour or the colours are unnaturally strong, you may need to adjust the pic-

ture controls (colour, contrast and brightness). If you're not confident doing this, ask the salesperson. Most TVs have factory settings for the picture controls which can be recalled; this is usually a good starting point.

■ If any of the picture controls needs to be set to maximum to produce an acceptable image, be wary — it means you may not be able to compensate for deterioration in the picture tube as the set ages.

■ If possible, try to look at the local news or a talk show which has a 'talking head' presenter in a studio. This will give you

The TVs all look remarkably alike — black boxes — but the remotes are different. Best were those for the Goldstar, Panasonic and Sanyo.



The Goldstar we tested came out as top performer — but when we were pricing the TVs in January it was very hard to find in the shops. The distributor has assured us it will be widely available by the time you're reading this, so if you have any difficulty finding it, contact Goldstar (on (02) 418 3055) for advice on where to get it.

remote, and make sure the main buttons are easy to locate and operate. The volume and channel-changing controls should stand out so you can easily put your finger on them without having to search. Ideally they should be a different shape or size from the other buttons so you can locate them without looking and in a dimly lit room.

■ Ask to see the instruction manual. A well written and easy to read manual can be a great help in coming to terms with the various features. The instructions should clearly show the location and function of all the controls.

GOOD PERFORMERS

If you're in the market for a mid-sized TV, choose one from the list on the right. We were pleased to find all these models performed well overall in our tests.

The GOLDSTAR has the equal best picture quality and is one of the easiest sets to use. Its remote control is comfortable to hold, well labelled and laid out and is the best of those tested.

The remote control for the SHARP isn't quite as easy to use and the picture quality wasn't as well liked by our viewing panel, but it scored equal best for sound quality and wasn't far behind the GOLDSTAR overall.

The viewing panel ranked the picture on the MITSUBISHI as the best and it was equal best for sound, but the set is let down by its remote control, which was the least usable of those tested. It's small but isn't comfortable to hold and the buttons are too small to use easily.

The PANASONIC and SANYO both have very good remote controls. While not quite as easy to use as the GOLDSTAR remote, both were well laid out and made the basic tasks easy to do.

The picture quality of the NEC, while acceptable, was the lowest of those in our *What to buy* list. The sound quality, however, is quite good and the set is easy to use, with a good remote control and excellent instructions.

WHAT TO BUY

GOLDSTAR CA-21A90B	\$650
SHARP CX 51B2	\$700
MITSUBISHI CT-21AM1	\$700
PANASONIC TC-21E1A	\$775
SANYO C21PM10	\$700
SAMSUNG CB-5322	\$650
SONY KV-2185AS	\$800
HITACHI CPT2167	\$725
NEC FS-5180	\$700
PHILIPS 21GR1261-75R	\$700
AKAI CT-2104A	\$600

How reliable are they?

We asked our panel of subscribers who report on the reliability of appliances if their TV had needed repair in the previous 12 months. The results are given below for the most popular brands. The number in brackets is the number of sets of the particular brand in the survey. On average, just over 10% of all TVs in the survey needed repair in that time, and the average cost of repairs was about \$86. We also asked our panelists if they'd buy the same brand of TV again. Note that the results of the survey are for TVs of all types and sizes, not for the models included in our test.

Brand (sample size)	% not needing repair
NEC (235)	97
Panasonic (547)	95
Toshiba (193)	95
AWA (265)	93
Hitachi (73)	93
JVC (74)	93
Sharp (269)	91
Sony (256)	91
Mitsubishi (97)	88
Akai (128)	85
Samsung (60)	85
Sanyo (261)	85
Philips (592)	80

Brand	% who would buy again
JVC	97
Hitachi	96
Panasonic	96
Sony	95
Sharp	94
Philips	93
Toshiba	93
NEC	92
AWA	91
Sanyo	91
Mitsubishi	90
Samsung	87
Akai	86

51cm televisions

10 Best Televisions						1	2	3	4	
	Brand/model (in rank order)	Manufacturer/ distributor	Origin	Warranty (years)	Target price (\$)*	Dimensions HxWxD (mm)	Sleep timer	Full auto-tuning	Blank channel skip	AV input
	GOLDSTAR CA-21A90B	Goldstar	Korea	1	650	465 x 520 x 460	✓ (F)	✓	✓	✓
	SHARP CX 51B2	Sharp	Australia	1	700	480 x 520 x 470	✓ (F)	✓	✓	✓
equal	MITSUBISHI CT-21AM1	Mitsubishi	Singapore	1	700	445 x 500 x 490	✓	✓	✓	✓
	PANASONIC TC-21E1A	Panasonic	Australia	1 (A)	775	465 x 530 x 485	✓	✓	✓	✓
	SANYO C21PM10	Sanyo	Singapore	1 (B)	700	465 x 505 x 485	✓ (F)	✓	✓	✓
equal	SAMSUNG CB-5322	Samsung	Korea	1	650	460 x 500 x 480	✓	✓	✓	✓
	SONY KV-2185AS	Sony	Malaysia	2	800	460 x 525 x 495	✓	✓	✓	✓
	HITACHI CPT2167	Hitachi	Singapore	2	725	445 x 510 x 480	✓ (F)	✓	✓	✓
equal	NEC FS-5180	NEC	Australia	1	700	475 x 500 x 480	✓ (F)	✓	✓	✓
	PHILIPS 21GR1261-75R	Philips	Singapore	1 (C)	700	485 x 505 x 470	✓	✓	✓	✓
	AKAI CT-2104A	Akai	China	1 (D)	600	445 x 515 x 475	✓	✓	✓	✓
equal	AWA 5150	AWA	China	1 (E)	625	465 x 560 x 505	✓	✓	✓	✓
	PALSONIC 5138	N G Enterprises	China	1	600	470 x 500 x 465	✓	✓	✓	✓
	TEAC CT-M511S	TEAC	China	1	650	475 x 595 x 475	✓	✓	✓	✓ (G)

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in January 1995.
(A) Option of additional two years' cover for \$25.
(B) Option of additional one year's cover for \$20.

(C) Optional extended warranty plan for \$59.
(D) Option of additional two years' cover for \$30.
(E) Additional two years' labour for replacement of picture tube.

(F) Can also be set to turn the TV on at a predetermined time.
(G) Has a SCART connector (see *What does it all mean?* below for an explanation of this).

What does it all mean?

Jargon and marketing buzzwords can be a confusing trap for unwary purchasers out to buy a new TV. Salespeople fire them at you like a Gatling gun and bright, inviting brochures make sermons out of them to preach the virtues of the latest technology. But do you really need to fork out the extra money for the latest widget or is it just a marketing gimmick? To help you make a little sense out of the hype, we've put together a short glossary of some of the more common terms you're likely to come across in the showroom.

■ **Flatter, squarer tube (FST):** As the name suggests, this refers to a picture tube that's designed to have a flatter face and squarer edges than the more traditional rounded screen. The main advantage of a flatter screen is an increase in the viewing angle. With a rounded picture tube, people sitting towards the side of the screen and viewing it from an angle may see a distorted image. A flatter tube lessens the distortion for viewers not sitting directly in front of the

screen. Another advantage is that flatter screens reflect less glare from lamps or light from windows back into the eyes of the viewer.

Currently no picture tube is perfectly flat, but some claiming to be flatter, squarer tubes are less flat and square than others. Even when a set has 'FST' plastered across its brochures you should check out the screen yourself to see how flat and square it really is.

■ **Dark or tinted glass:** The glass that makes up the front of the picture tube can be tinted. This has the effect of increasing the perceived contrast in an image and making the picture appear a little crisper. It can also reduce light reflection and make viewing less fatiguing. Check out the picture yourself. Merely the presence of tinted glass is no guarantee that the picture is going to be good.

■ **Trinitron:** This is a design of picture tube patented by Sony in 1968. Sony claims that Trinitron tubes, by virtue of their unique design, give a brighter, sharper and better focused picture than other tubes. They are also perfectly flat in the vertical plane, which Sony claims makes them less susceptible to problems with light reflections (see *Flatter, squarer tube*, left).

■ **SCART connector:** SCART is a European standard for interconnecting video equipment. It defines a standard plug and socket that can be used to connect together TVs, video recorders, satellite TV decoders, etc. Some televisions include a SCART socket but the system is not widely used in Australia, so if you don't have a particular need for one there's no advantage in having a TV with one.

■ **S-Video:** Some video recorders, camcorders and laserdisc players are fitted with S-Video connectors and, when connected to a television which has an S-Video input, give better picture quality than can be achieved through the normal video connections. If you have a video source that has an S-Video connector, you'd benefit from a similarly equipped TV, but the market for these products in Australia is pretty limited.

The front of a flatter, squarer tube (FST) is visibly flatter than a normal rounded picture tube, and is claimed to reduce distortion and glare.

5	6	7	8	9	10	11	
Headphone socket	Channel toggle	Personal preference memories	Picture quality score (%)	Sound quality score (%)	Ease of use score (%)	Overall score (%)	Brand/model (in rank order)
	✓	2	73	75	85	76	GOLDSTAR CA-21A90B
	✓		70	80	80	74	SHARP CX 51B2
			73	80	65	73	MITSUBISHI CT-21AM1
			70	75	80	73	PANASONIC TC-21E1A
	✓		68	70	85	72	SANYO C21PM10
		1	72	65	75	71	SAMSUNG CB-5322
			70	70	75	71	SONY KV-21BSAS
	✓	3	70	65	75	70	HITACHI CPT2167
			65	75	80	70	NEC FS-5180
		1	70	65	75	70	PHILIPS 21GR1261-75R
			72	65	65	69	AKAI CT-2104A
			63	65	65	64	AWA 5150
		1	67	65	55	64	PALSONIC 5138
		1	58	65	65	61	TEAC CT-M511S

1 Sleep timer

All the sets with this feature allow you to set the TV to turn off automatically after a predetermined time. This is useful if you watch TV in bed and don't want the set to stay on all night if you fall asleep.

2 Full auto-tuning

All the sets can search for and lock onto an active channel. Once you find the channel you're searching for you can store it as a channel preset (a memory for storing TV stations).

Models with full auto-tuning go one step further by searching for all available TV channels and storing them automatically in consecutive presets. This is a quick and easy way of finding and storing all the channels with a single button press. A disadvantage is that the channels won't be stored under their channel numbers. If you want channel seven, for example, to be stored in preset seven, you'd need to go through the manual tuning search and store process instead.

All the models have more than enough presets to store normal TV channels as well as connecting a video recorder and pay TV decoder.

3 Blank channel skip

This refers to the skipping of blank channel presets when you press the channel up or down buttons. All TVs provide more presets than most users need, and models with a skip feature let you disable unused presets so they don't appear when you're stepping through the channels. If, for example, you have channel seven stored on preset seven and channel nine on preset

nine, you can set the skip function on preset eight so that you jump directly from seven to nine when you press 'channel up'.

All the models have numeric keys on the remote control to allow you to select any preset directly rather than using the up and down buttons.

4 AV line input

An AV (audio/video) line input lets you connect a video, camcorder, etc., directly to the TV. Connecting a video recorder using the AV input gives a better-quality picture than connecting it using the aerial socket.

The AV input on the TEAC uses a SCART connector (see *What does it all mean?*, left, for an explanation), so you need a special adaptor cable to connect a VCR to this model.

5 Headphone socket

This is useful for watching TV without disturbing other people, and for people with a hearing impairment.

6 Channel toggle

This feature lets you alternate between the channel you're currently watching and the last channel selected. This is useful if you want to quickly flip between two channels. You may, for example, be watching a movie but want to keep flipping over to the cricket to catch the score.

7 Personal preference memories

This feature lets you store picture (colour, contrast, brightness) and/or sound settings in a memory that can be recalled at any time. The table lists the number of memories available for storing these settings.

8 Picture quality score

The picture quality score was made up of two parts. The major component (67%) resulted from a viewing panel, where panellists rated the picture quality of each model when watching a live broadcast. The remaining part of the score came from an examination of a series of technical test patterns used to evaluate various areas of the TVs' performance.

9 Sound quality score

To assess the sound quality we listened to a selection of material, including music and speech from various TV broadcasts. We looked at how well speech was reproduced, the overall balance and clarity of sound for music, the volume range and whether the sound was distorted at higher volume levels.

10 Ease of use score

The main component of this score was an assessment of the remote control. Ideally, a good remote should be comfortable to hold, well labelled and well set out so the main buttons are easy to find and use. The other components of this score are the ease of initially tuning in the channels and the quality and usefulness of the instructions.

11 Overall score

The overall score was a combination of picture quality, sound quality and ease of use, weighted as follows:

- Picture quality score: 60%
- Sound quality score: 20%
- Ease of use score: 20%



WHAT DO YOU KNOW?



RECALLS AND BANS

- 1** Airbags provide protection for only the initial impact in a multi-impact car accident.
True or false?

- 2** In the computer industry, GUI stands for:
A) Genuine User Identification.
B) Graphical User Interface.
C) Gigabyte Utility Integration.



- 3** The surface area of an average female head of hair is:
A) One to two square metres.
B) Three to four square metres.
C) Four to eight square metres.

- 4** Cutting hair makes it grow faster.
True or False?

- 5** Australia has the most expensive petrol in the industrialised world.
True or false?

- 6** If a doctor doesn't mark a prescription with "not for substitution", the consumer has the right to purchase a cheaper but equivalent generic-brand drug.
True or false?

- 7** The percentage of a household's weekly food budget devoted to eating out is increasing rapidly. This year it is expected to rise to:
A) 20%.
B) 30%.
C) 40%.
D) 50%.

- 8** The Credit Reference Association of Australia is not allowed to hold information which is not directly related to an individual's credit history.
True or false?



- 9** Cars built after 1986 must be able to run on unleaded petrol. No cars built before 1986 can run on unleaded petrol.
True or false?

If you find a recall or ban not on our list, please let us know. Companies often rent 008 or 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

The Reject Shop has recalled a CHILDREN'S TENT, as it does not contain adequate ventilation holes, making it unsafe for children. Return to your nearest Reject Shop for a refund.

The Reject Shop has recalled a TOY WOODEN CART, as it contains small parts which could pose a choking hazard to young children. Return to your nearest Reject Shop for a refund.

GE Lighting Australia has recalled GE BAYONET CAP LIGHT GLOBES MADE IN BRAZIL (25, 40, 60, 75 and 100 watts, clear and pearl), as they may be hazardous if used in unearthed standard lamps or unearthed metal luminaires fitted with metal lamp holders. Only globes made in Brazil are affected. If you have installed these globes, turn the lamp and power off, allow the globe to cool and remove it from the socket. Dispose of the globes or return to GE Lighting Australia for a refund or replacement.

The Australian Bicycle Co has recalled 20" (50 cm) MOUNTAIN BIKES WITH COASTER BRAKE (BREAKAWAY, WILDTHING and MOUNTAIN CRUSHER MODELS), purchased after August 1994, as the pedals do not have the required ground clearance. Don't ride the bike until it's fitted with replacement pedals. These can be obtained by contacting The Australian Bicycle Co, PO Box 310, West Footscray 3012, or phone 1800 810 309 toll-free, quoting Bicycle Safety Notice Ref. ABC PR/0295.

Melcann has recalled MELCANN 4-LITRE AND 1-LITRE FIX-IT MINERAL TURPENTINE CONTAINERS, as the safety instructions on the label, advising that vomiting should be induced if the turpentine is swallowed, are incorrect. You should not induce vomiting, but give plenty of water and contact a doctor or Poisons Information Office immediately.

The label also advises that methylated spirits may be used for drying out auto hydraulics and electrical components and for de-watering auto fuel systems. This is correct—but you shouldn't use turpentine for this purpose. Return container to point of purchase or to Melcann for a refund.

ANSWERS

1. True.
2. B.
3. C.
4. False. Hormones and seasons (beards grow faster in summer than winter) have an effect on the rate of hair growth, but not cutting or shaving.
5. False. Many industrialised countries have more expensive petrol than Australia (which averages 70 cents per litre), including the Netherlands at \$1.40, and Belgium and Germany at \$1.30.
6. True. As of December 1, 1994, new legislation means

consumers can ask for cheaper versions of some 120 commonly used drugs (see *Bodywise*, CHOICE, January 1995 for details).

7. B.

8. True. The CRAA doesn't, for example, hold information on a person's race or national origins, political, social or religious beliefs, nor does it record if you're a few days late with your Bankcard bill.

9. False. Certain cars built before 1986 can also run on unleaded. (See *Drivelines*, CHOICE, October 1994.)

CHOICE

The magazine of the Australian Consumers' Association

(A non-profit company limited by guarantee) ACN 000 261 925

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ACA is a Council Member of Consumers International

CHOICE is a registered trade mark of the Australian Consumers' Association

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Farex Australia has recalled FAREX 125 g RICE CEREAL BATCH CODE 3144, as some packs may contain a higher than standard iron content. This would generally not be a risk to children's health, though it may cause a temporary change in bowel habits (for example, constipation) in some susceptible infants. The packets involved have a use-by date of August 1995. Return to point of purchase for a refund. Call 1800 037 058 for more information.

Australian Asia/Pacific Wholesalers has recalled BLACK AND GOLD SARDINE CATFOOD RW 41030 (800 g) (sold in NSW and SA), as cans may be contaminated by bacteria, which could affect humans (as well as animals) if eaten, or if the product contacts an open cut or sore. Return to point of purchase for a refund.

Mercedes-Benz (Australia) has recalled MERCEDES-BENZ COMMERCIAL VEHICLES (MODELS 1734, 2434, 2435, 2448, 2534, 2550, 2648 and 2650) (manufactured between November 1990 and August 1994), as the power supply wire for the trailer indicators, power mirrors and radio circuits may not be located in the correct position. This could mean the circuits would be inadequately protected if a malfunction occurs. Contact an authorised Mercedes-Benz commercial vehicle dealer as soon as possible for a free inspection and, if necessary, correction of the fault.

Garibaldi Smallgoods (now in receivership) has recalled GARIBALDI UNCOOKED SMALLGOODS. This applies specifically to the company's mettwurst (including Yellow Label Generic Brand Mettwurst), salami, prosciutto, parma, pancetta and capocollo, with use-by dates 26/1/95 to 12/4/95. Consumption of Garibaldi Mettwurst has caused the death of one child and serious illness in SA. Return to point of purchase or call Garibaldi on (08) 47 5944.

Sealey International has recalled BREEZAIR REMOTE CONTROL AIR CONDITIONERS, as they could contain faulty electronic components, which if combined with a malfunction in another part of the unit, could cause the air conditioner to catch fire. Sealey has already contacted all 4000 people who have bought these air conditioners, advising them to disconnect power to the unit immediately, and has replaced the remote control unit with a wall switch. Once the problem is rectified, the company will supply each customer with a new electronic control unit.

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TWELVE MONTH INDEX

MAY 1994 — APRIL 1995

(T) Test
(D) Includes assessment of suitability for people with disabilities
(U) Update of previous report
* Additions or corrections to reports, small follow-up items, or letters

Aids for the disabled	Nov	Food		Nutrient claims on food labels	Feb
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		frozen meals	Sep (T)	Older people, caring for	Jan, Feb*, Mar*
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